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LIST OF NORTH AMERICAN RECENT MAMMALS

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Advertisement

The scientific publications of the National Museum include two series known, respectively, as *Proceedings* and *Bulletin*.

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Remington Kellogg,
Director, United States National Museum.

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Introduction

The object of the present list is to summarize the results of taxonomic studies of North American Recent mammals up to January 1, 1953, and to indicate the forms represented in the collections of the United States National Museum. North America as here understood includes the entire continent from Panamá northward, Greenland, the Greater Antilles, and the Lesser Antilles south to Grenada. In no other museum is the mammal fauna of an area of comparable size so largely represented. The extent of this representation is shown by the tabular synopsis on the following page.

At least 263,214 specimens, including 1871 types, comprise the collection of North American Recent mammals in the United States National Museum. Approximately 56 percent of this material is in the collection brought together by the staff of the Fish and Wildlife Service, Department of the Interior; the remainder, including the seals, sirenians, cetaceans, and all of the older, more historic specimens, is kept in the museum collection. The material derived from these two sources furnishes so complete a representation of the mammals of North America that, of the 3,622 forms now listed, only 544 are not included.

The number of specimens in the Fish and Wildlife collection entered in the Museum's catalogs to June 30, 1952, is 146,228. This material, assembled wholly by the activities of the Fish and Wildlife Service, belongs, according to Act of Congress (sundry civil act of March 3, 1879; 20 U. S. C. 394), to the United States National Museum. By the same authority, it is maintained as a separate collection pending investigations by members of the service. The wording of the act is as follows: ". . . And all collections of rocks, minerals, soils, fossils and objects of natural history, archeology, and ethnology made by the Coast and Interior Survey, the Geological Survey, or by any other parties of the Government of the United States, when no longer needed for the investigations in progress, shall be deposited in the National Museum."

In 1884 Dr. F. W. True published under the title "A Provisional List of the Mammals of North and Central America, and the West Indian Islands" (Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), pp. 587–611, Nov. 29, 1884) a summary of the North American mammal fauna as then known. The number of forms known in 1884 was 363; in 1900 the number of forms recognized had increased to about 1,450 (Miller and Rehn, Systematic Results of the Study of North American Land Mammals to the Close of the Year 1900; Proc. Boston Soc. Nat. Hist., vol. 30, pp. 1–352, Dec. 27, 1901); in 1911 approximately 2,100 forms were recognized (Miller, List of North American Land Mammals in the United States National Museum, 1911; U. S. Nat. Mus. Bull. 79, Dec. 31, 1912); and in 1923 the list contained 2,554 forms (Miller, List of North American Recent Mammals, 1923; U. S. Nat. Mus. Bull. 128, Apr. 29, 1924).

Mammals represented in U. S. National Museum collections

Families	Forms listed	Forms in collection	Forms not represented	Eutypes	Hypotypes
Marsupialia					
Didelphiidae	39	32	7	17	1
Insectivora					
Solenodontidae	3	2	1	0	0
Soricidae	163	142	21	104	7
Talpidae	41	31	10	10	3
Nesophontidae	6	4	2	3	0
Chiroptera					
Emballonuridae	13	10	3	0	0
Noctilionidae	3	3	0	1	0
Phyllostomidae	131	108	23	42	2
Desmodontidae	2	2	0	0	0
Natalidae	10	9	1	6	0
Thyropteridae	2	2	0	0	0
Vespertilionidae	103	90	13	40	9
Molossidae	35	31	4	9	3
Primates					
Cebidae	27	21	6	5	3
Callithricidae	1	1	0	0	0
Cercopithecidae	2	2	0	0	0
Hominidae	4	4	0	0	0
Edentata					
Megalonychidae	4	2	2	2	0
Myrmecophagidae	5	5	0	2	0
Bradypodidae	4	4	0	1	0
Dasypodidae	4	4	0	1	1
Lagomorpha					
Ochotonidae	32	29	3	17	0
Leporidae	124	112	12	52	9
Rodentia					
Aplodontiidae	7	6	1	3	2
Sciuridae	379	349	30	191	22
Geomyidae	413	320	93	216	7
Heteromyidae	338	257	81	162	11
Castoridae	25	23	2	9	0
Cricetidae	871	730	141	399	71
Muridae	6	6	0	0	0
Zapodidae	40	31	9	13	0
Erethizontidae	12	10	2	2	0
Hydrochoeridae	1	1	0	1	0
Heptaxodontidae	3	1	2	1	0
Dasyproctidae	20	16	4	7	0
Capromyidae	24	18	6	8	0
Echimyidae	17	14	3	7	0

Mammals represented in U. S. National Museum collections—Continued

Families	Forms listed	Forms in collection	Forms not represented	Eutypes	Hypotypes
CETACEA					
Ziphiidae	9	8	1	3	2
Physeteridae	1	1	0	0	0
Kogiidae	1	1	0	0	1
Monodontidae	3	3	0	0	0
Dephinidae	28	27	1	6	3
Eschrichtiidae	1	1	0	0	0
Balaenopteridae	5	5	0	0	1
Balaenidae	3	2	1	0	0
CARNIVORA					
Canidae	95	83	12	53	6
Ursidae	109	105	4	83	3
Procyonidae	74	60	14	43	2
Mustelidae	195	177	18	82	8
Viverridae	1	1	0	0	0
Felidae	52	49	3	26	4
PINNIPEDIA					
Otariidae	4	4	0	1	0
Odobenidae	2	2	0	0	0
Phocidae	15	14	1	2	1
SIRENIA					
Trichechidae	2	2	0	0	0
PERISSODACTYLA					
Tapiridae	1	1	0	1	1
ARTIODACTYLA					
Tayassuidae	12	11	1	10	0
Cervidae	71	67	4	32	4
Antilocapridae	5	5	0	4	0
Bovidae	19	17	2	5	5
Totals	3,622	3,078	544	1,681	192

An asterisk is placed after the name of each form represented in the national collection. A dagger indicates that the type is there also. It is to be understood that, especially in unrevised genera, the indication that a form is in the collection implies nothing more than the presence of a specimen of the animal on which a name was based.

The sequence of orders and families is in its main features that adopted by Simpson in "The Principles of Classification and a Classification of Mammals" (Bull. Amer. Mus. Nat. Hist., vol. 85, Oct. 5, 1945).

Under every species and subspecies reference is made to the first publication of the specific or subspecific name. To this, when necessary, is added (a) reference to first use of the current binomial or trinomial; (b) in the case of species described before 1884, but not at that date admitted as valid, reference to their establishment as members of the North American fauna; (c) reference to True's list, but with the many species which prove to have been composite, as understood in 1884, no attempt is made to apportion the name then used to each of the component parts as they now stand; and (d) references to changes of such names as are now different from those used by True. References to alterations in generic names are also given, but the concordance with the nomenclature of 1884, being indicated by the citations under species, is here omitted. The type locality of each form is stated with all possible exactitude, and in revised genera the ranges are given, so far as practicable, in the words of the author of the revision.

All questions of nomenclature have been decided as nearly as possible in accordance with the International Zoological Code.

In the preparation of this bulletin assistance has been received from members of the Section of Distribution of Birds and Mammals, Fish and Wildlife Service, particularly Miss Viola S. Schantz, who has verified the presence of listed forms in that collection; from Dr. David H. Johnson, Dr. Henry W. Setzer, and Charles O. Handley, Jr., of the Division of Mammals, United States National Museum; and from Dr. E. Raymond Hall, Director, Museum of Natural History, University of Kansas.

North American Recent Mammals

Class MAMMALIA

Subclass THERIA

Infraclass METATHERIA

Superorder DIDELPHIA

Order MARSUPIALIA

Suborder POLYPROTODONTIA

Superfamily DIDELPHOIDEA

Family DIDELPHIIDAE

Genus DIDELPHIS[1] Linnaeus (opossums)

1758. *Didelphis* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 54. (Type, *Didelphis marsupialis* Linnaeus.)

Didelphis marsupialis virginiana Kerr*

1792. *Didelphis virginiana* Kerr, The animal kingdom . . . , p. 193.
1884. *Didelphys virginiana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 587, Nov. 19, 1884.
1951. [*Didelphis marsupialis*] *virginiana* Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 550, July 10, 1951.

Type Locality.—Virginia. *Range.*—From Lake Ontario, southern Michigan, southern Wisconsin, and southcentral Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. No. 2, p. 53, 1945) south to Georgia, Alabama, central Mississippi, northern Louisiana, and Kerrville, Kerr County, and San Antonio, Bexar County, Tex. (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 162, June 15, 1901); east sporadically to Massachusetts, southern Vermont, and southern New Hampshire; a few definite records from southern Ontario (Essex, Kent, and Middlesex Counties) but not definitely known to be established in Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 11, Jan. 24, 1947); west to Baca County in southeastern Colorado and Tascosa, Oldham County, in northwestern Texas (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 7, Mar. 1, 1932).

Introductions: California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 75, Sept. 26, 1933), Oregon (Jewett and Dobyns, Journ. Mamm., vol. 10, No. 4, p. 351, Nov. 11, 1929), and Skagit County, Wash. (Scheffer, Murrelet, vol. 24, No. 2, pp. 27–28, Aug. 15, 1943).

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[1] Revised by J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, pp. 149–188, June 15, 1901.

Didelphis marsupialis pigra Bangs*

1898. *Didelphis virginiana pigra* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 172, March 1898. (Regarded as identical with *virginiana* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 550, July 10, 1951.)

Type Locality.—Oak Lodge, East Peninsula, opposite Micco, Brevard County, Fla. *Range.*—Florida, lower coast region of Georgia, and low Gulf coast belt through southern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 216, Nov. 22, 1943) to Matagorda Bay, and north at least to Black Creek, northeast of Sour Lake, Hardin County, Tex. (V. Bailey, North Amer. Fauna No. 25, p. 57, Oct. 24, 1905).

Didelphis marsupialis texensis J. A. Allen†*

1901. *Didelphis marsupialis texensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 172, June 15, 1901. (For status, see Davis, Journ. Mamm., vol. 25, No. 4, pp. 374–375, Dec. 12, 1944. Regarded as identical with *californica* by Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 548, July 10, 1951.)

1902. *Didelphis mes-americana texensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 256, Aug. 18, 1902.

Type Locality.—Brownsville, Cameron County, Tex. *Range.*—Coast region of Texas, east at least to Rockport, Aransas County (J. A. Allen, loc. cit.); Rio Grande Valley northwestward to Brewster County (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 6, Aug. 7, 1942) and Monahans, Ward County, Tex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 7, Mar. 1, 1932); south at least to San Carlos Mountains in central Tamaulipas (Dice, Univ. Michigan Stud., Sci. Ser., vol. 12, p. 249, 1937) and to Río Ramos, 20 km. northwest of Montemorelos in central Nuevo León, México (Davis, op. cit., p. 374).

Didelphis marsupialis mesamericana Oken*

1816. *Did*[*elphys*] *mes-americana* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sec. 2, p. 1152.

1833. *Didelphis californica* Bennett, Proc. Zool. Soc. London, 1833, pt. 1, p. 40, May 17, 1833. ("That part of California which adjoins to Mexico." Restricted to Sonora, Mexico, by Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, pp. 548, 550, July 10, 1951.)

1902. *Didelphis mes-americana* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 256, Aug. 18, 1902.

Type Locality.—Northern México. *Range.*—Interior tablelands of México from Monterrey, Nuevo León (Davis, Journ. Mamm., vol. 25, No. 4, p. 374, Dec. 12, 1944), and Batopilas, Chihuahua, south through Durango, Zacatecas, Guanajuato, Querétaro, Hidalgo, and México to Puebla and Morelos (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 167, June 15, 1901; Davis, loc. cit.); and from Oputo, Río de Bavispe (V. Bailey, Journ. Mamm. vol. 14, No. 3, p. 243, Aug. 17, 1933), and Ures and Hermosillo, Río Sonora, in Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 18, Feb. 15, 1938) south through Sinaloa, Nayarit, Jalisco, Michoacán, and Guerrero to Tuxtepec, San Domingo, and Tehuantepec in Oaxaca (J. A. Allen, 1901, loc. cit.; and Bull.

Amer. Mus. Nat. Hist., vol. 22, p. 195, July 25, 1906). Recorded also from Cuernavaca, Morelos, México (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 321, Dec. 5, 1952).

Didelphis marsupialis tabascensis J. A. Allen†*

1901. *Didelphis marsupialis tabascensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 173, June 15, 1901. (Regarded as identical with *californica* by Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 548, July 10, 1951.)

1902. *Didelphis mes-americana tabascensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 257, Aug. 18, 1902.

Type Locality.—Teapa, Tabasco, México. *Range.*—From Jalapa, Veracruz (Davis, Journ. Mamm., vol. 25, No. 4, p. 374, Dec. 12, 1944) to Frontera, Tabasco, and across Chiapas, México, to Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 2, Dec. 12, 1934), British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 15, July 15, 1935), and Nicaragua (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 93, Apr. 30, 1910).

Didelphis marsupialis yucatanensis J. A. Allen†*

1901. *Didelphis yucatanensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 178, June 15, 1901. (*Didelphis nelsoni* J. A. Allen, op. cit., p. 160, a nomen nudum, may have been intended to apply to this subspecies. Regarded as identical with *californica* by Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 548, July 10, 1951.)

1946. *Didelphis marsupialis yucatanensis* Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 360, November 1945.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Yucatán Peninsula biotic province. Recorded from Mérida, Yucatán, and Apazote, Campeche, México (J. A. Allen, op. cit., p. 179).

Didelphis marsupialis cozumelae Merriam†*

1901. *Didelphis yucatanensis cozumelae* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 101, July 19, 1901. (Regarded as identical with *californica* by Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 548, July 10, 1951.)

Type Locality.—Cozumel Island, Quintana Roo, México. *Range.*—Known from type locality only.

Didelphis marsupialis richmondi J. A. Allen†*

1901. *Didelphis richmondi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 175, June 15, 1901. (Regarded as identical with *californica* by Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 548, July 10, 1951.)

1920. *D[idelphis] m[arsupialis] richmondi* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 46, Apr. 24, 1920.

Type Locality.—Greytown [=San Juan del Norte], Comarca de San Juan del Norte, Nicaragua. *Range.*—Recorded also from near San José, Costa Rica (J. A. Allen, loc. cit.).

Didelphis marsupialis particeps Goldman

1917. *Didelphis marsupialis particeps* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 107, May 23, 1917.

Type Locality.—San Miguel Island, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from type locality only.

Didelphis marsupialis battyi Thomas

1902. *Didelphis marsupialis battyi* Thomas, Nov. Zool., vol. 9, p. 137, Apr. 10, 1902.

Type Locality.—Coiba Island, Panamá. *Range.*—Known from type locality only.

Didelphis marsupialis etensis J. A. Allen*

1902. *Didelphis marsupialis etensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 262, Aug. 18, 1902. (Regarded as *Didelphis marsupialis marsupialis* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 550, July 10, 1951.)

Type Locality.—Eten, Piura, Perú. *Range.*—Northward to Boquerón, Chiriquí, Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 45–47, Apr. 26, 1920) and Pozo Azul, San José, Costa Rica (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 44, Feb. 29, 1904). Recorded also from El Muñeco, Cartago, Costa Rica (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 321, Dec. 5, 1952).

Didelphis marsupialis insularis J. A. Allen*

1902. *Didelphis marsupialis insularis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 259, Aug. 18, 1902.

Type Locality.—Caparo, Trinidad Island, British West Indies. *Range.*—Occurs also on the islands of Dominica, Grenada, St. Vincent, and Martinique, Lesser Antilles (see Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 93, May 4, 1912).

Genus MARMOSA[2] Gray (murine opossums)

1821. *Marmosa* Gray, London Med. Repos., vol. 15, p. 308, Apr. 1, 1821. (Type, *Didelphis murina* Linnaeus.)

1900. *Caluromys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 189, Oct. 12, 1900. (Part, *cinerea*—group.)

1916. *Marmosops* Matschie, Sitzb. Ges. naturf. Freunde Berlin, 1916, p. 267, Dec. 15, 1916. (Type, *Didelphis incana* Lund.)

cinerea—group

Marmosa alstoni alstoni (J. A. Allen)*

1884. *Didelphys cinerea* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 587, Nov. 29, 1884.

1900. *Caluromys alstoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 189, Oct. 12, 1900.

1905. [*Marmosa*] *alstoni* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 4, p. 855.

1933. *Marmosa alstoni alstoni* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 67, Aug. 10, 1933.

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[2] Revised by Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, pp. 1–250, Aug. 10, 1933.

Type Locality.—Tres Ríos, subtropics, east of divide, Cartago, Costa Rica. *Range.*—Subtropics of Costa Rica, Nicaragua, and Honduras and, missing lowlands of Panamá, reappearing in Colombian subtropics (Departments of Antioquia and Caldas).

Marmosa alstoni nicaraguae Thomas*

1905. *Marmosa cinerea nicaraguae* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 16, p. 313, Sept. 1905.

1933. *Marmosa alstoni nicaraguae* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 69, Aug. 10, 1933.

Type Locality.—Bluefields, Zelaya, Nicaragua. Sea level. *Range.*—Uncertain, but probably Caribbean coasts of Nicaragua, Costa Rica, and Honduras. Recorded also at Double Falls, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 550, July 10, 1951).

murina—group

Marmosa mitis isthmica Goldman†*

1912. *Marmosa isthmica* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 1, Feb. 19, 1912.

1933. *Marmosa ruatanica isthmica* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 125, Aug. 10, 1933.

1951. *Marmosa mitis isthmica* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 552, July 10, 1951.

Type Locality.—Río Indio, near Gatún, Canal Zone, Panamá. *Range.*—From western Panamá through Canal Zone eastward into Colombia.

Marmosa mitis ruatanica Goldman†*

1911. *Marmosa ruatanica* Goldman, Proc. Biol. Soc. Washington, vol. 24, p. 237, Nov. 28, 1911.

1933. *Marmosa ruatanica ruatanica* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 24, Aug. 10, 1933.

1951. *Marmosa mitis ruatanica* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 551, July 10, 1951.

Type Locality.—Ruatán Island, off north coast (Caribbean) of Honduras. *Range.*—Known from Ruatán Island. Recorded also at Bokowina and Silkgrass in British Honduras (Hershkovitz, loc. cit.).

Marmosa mitis chapmani J. A. Allen*

1900. *Marmosa chapmani* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 197, Oct. 23, 1900.

1911. *Marmosa grenadae* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 7, p. 514. May 1911. (Grenada, Lesser Antilles; see G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 194, July 1911.)

1911. *Marmosa tobagi* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 7, p. 515, May 1911. (Tobago.)

1911. *Marmosa nesaea* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 7, p. 515, May 1911. (Caparo, Trinidad.)

1933. *Marmosa chapmani* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 119, Aug. 10, 1933.

1951. *Marmosa mitis chapmani* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 552, July 10, 1951.

Type Locality.—Caura, head of Caura Valley, northern range, Trinidad, British West Indies. Altitude, 500 feet. *Range.*—Apparently common on Trinidad; and the animals from Grenada and Tobago, which, although appearing very slightly smaller than the Trinidad animals, are essentially the same, are referred to this species.

Marmosa mitis fulviventer Bangs

1901. *Marmosa fulviventer* Bangs, Amer. Nat., vol. 35, p. 632, August 1901.

1933. *Marmosa mitis fulviventer* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 117, Aug. 10, 1933.

Type Locality.—San Miguel Island, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Recorded only from islands of Saboga and San Miguel, Panamá (Pacific Coast).

Marmosa mexicana mexicana Merriam†*

1884. *Didelphys murinus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 587, Nov. 29, 1884. (Part.)

1897. *Marmosa murina mexicana* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 44, Mar. 16, 1897.

1902. *Marmosa mexicana mexicana* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 19, Apr. 1902.

1917. *Marmosa mexicana savannarum* Goldman†, Proc. Biol. Soc. Washington, vol. 30, p. 108, May 23, 1917. (Boquerón, Chiriquí, Panamá.)

1933. *Marmosa mexicana mexicana* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 132, Aug. 10, 1933.

Type Locality.—Juquila, Oaxaca, México. Altitude, 1,500 meters. *Range.*—From Veracruz and Oaxaca southward to Chiriquí, Panamá, excepting arid parts of Yucatán and higher parts of mountains in Guatemala, Honduras, Nicaragua, and Costa Rica.

Marmosa mexicana mayensis Osgood

1913. *Marmosa mayensis* Osgood, Proc. Biol. Soc. Washington, vol. 26, p. 176, Aug. 8, 1913.

1917. *Marmosa mexicana mayensis* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 109, May 23, 1917.

1933. *Marmosa mexicana mayensis* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 135, Aug. 10, 1933.

Type Locality.—Izamal, east of Mérida, Yucatán, México. *Range.*—Izamal and Chichén-Itzá, Yucatán. Recorded also at Bokowina, Silkgrass, and Stann Creek Valley in British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus., Publ. 670, vol. 31, p. 551, July 10, 1951).

Marmosa mexicana zeledoni Goldman†*

1911. *Marmosa zeledoni* Goldman, Proc. Biol. Soc. Washington, vol. 24, p. 238, Nov. 28, 1911.

1919. *Marmosa mexicana zeledoni* Cabrera, Genera mammalium: Monotremata, Marsupialia (Mus. Nac. Cienc. Nat., Madrid), p. 37.

1933. *Marmosa mexicana zeledoni* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 135, Aug. 10, 1933.

Type Locality.—Navarro, near Orosi, Caribbean slope, Cartago, Costa Rica. Altitude, between 2,500 and 3,000 feet. *Range.*—Parts of Costa Rica (Navarro, Boruco, Jiménez, Río Pacuare) and Nicaragua (Bluefields, Escondido River, Río Tuma, east of Matagalpa).

Marmosa canescens canescens (J. A. Allen) *

1893. *Didelphis* (*Micoureus*) *canescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 235, Sept. 22, 1893.

1897. *Marmosa canescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 58, Mar. 15, 1897.

1897. *M*[*armosa*] *canescens* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 43, Mar. 16, 1897.

1913. *Marmosa gaumeri* Osgood, Proc. Biol. Soc. Washington, vol. 26, p. 175, Aug. 8, 1913. (Yaxcaba, southwest of Chichén-Itzá, Yucatán, México).

1933. *Marmosa canescens canescens* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 140, Aug. 10, 1933.

Type Locality.—Santo Domingo de Guzmán, Isthmus of Tehuantepec, Oaxaca, México. *Range.*—Yucatán, Oaxaca (and probably parts of Chiapas), Guerrero, parts of Puebla, Michoacán. A specimen from Colima and another from Nayarit appear intermediate between *canescens* and *sinaloae.*

Marmosa canescens sinaloae J. A. Allen*

1898. *Marmosa sinaloae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 143, Apr. 12, 1898.

1933. *Marmosa canescens sinaloae* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 142, Aug. 10, 1933.

Type Locality.—Tatemeles, Sinaloa, México. *Range.*—Provinces of Sinaloa, Durango and Nayarit, México.

Marmosa canescens oaxacae Merriam†*

1897. *Marmosa oaxacae* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 43, Mar. 16, 1897.

1933. *Marmosa canescens oaxacae* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 143, Aug. 10, 1933.

Type Locality.—City of Oaxaca, Oaxaca, México. *Range.*—Known from city of Oaxaca, only.

Marmosa canescens insularis Merriam†*

1898. *Marmosa insularis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 14, Jan. 27, 1898.

1933. *Marmosa canescens insularis* Tate, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 144, Aug. 10, 1933.

Type Locality.—María Madre Island, Tres Marías Islands, Nayarit, México. *Range.*—Known from María Madre Island only.

noctivagans—group

Marmosa invicta Goldman†*

1912. *Marmosa invicta* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 3, Sept. 20, 1912.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Known from type locality only.

Genus MONODELPHIS Burnett (short bare-tailed opossums)

1830. *Monodelphis* Burnett, Quart. Journ. Sci. Lit. Art, vol. 28 (October to December 1829) p. 351. (Type, by subsequent selection (Matschie, Sitzb. Ges. naturf. Freunde Berlin, 1916, p. 271), *Didelphis brevicaudata* Erxleben (=*brachyuros* Schreber). For use of this name in place of *Peramys* Lesson see Thomas, Ann. Mag. Nat. Hist., ser. 9, vol. 5, p. 195, February 1920.)

Monodelphis melanops (Goldman)†*

1912. *Peramys melanops* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 2, Sept. 20, 1912.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Known from type locality only.

Genus PHILANDER[3] Tiedemann (four-eyed or gray-masked opossums)

1808. *Philander* Tiedemann, Zoologie . . . , vol. 1, p. 426.
(Type, *P[hilander] virginianus* Tiedemann=*Didelphis opossum* Linnaeus.)

1916. *Metachirops* Matschie, Sitzb. Ges. naturf. Freunde Berlin, 1916, p. 262, October 1916. (Type, *Didelphis quica* Temminck.)

1919. *Holothylax* Cabrera, Genera Mammalium; Monotremata, Marsupialia (Mus. Nac. Cienc. Nat. Madrid), p. 47. (Type, *Didelphis opossum* Linnaeus.)

Philander opossum fuscogriseus (J. A. Allen)*

1884. *Didelphys quica* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 587, Nov. 29, 1884. (Not of Temminck.)

1900. *Metachirus fuscogriseus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 194, Oct. 23, 1900.

1946. *Philander opossum fuscogriseus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 283, Dec. 31, 1946.

Type Locality.—Greytown [=San Juan del Norte], Comarca de San Juan del Norte, Nicaragua (see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 30, p. 247, Dec. 2, 1911). *Range.*—From Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 51, Apr. 26, 1920) north through Costa Rica and Nicaragua to Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 113, May 29, 1942).

Philander opossum pallidus (J. A. Allen)†*

1901. *Metachirus fuscogriseus pallidus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 215, July 3, 1901.

Type Locality.—Orizaba, Veracruz, México. *Range.*—From Xilitla in San Luis Potosí (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ., No. 23, p. 2, July 10, 1950), Metlatoyuca in Puebla (J. A. Allen, loc. cit.), and Orizaba and Vera Cruz in Veracruz south through Chiapas and Yucatán, México (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 552, July 10, 1951), to Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 4, Dec. 12, 1934) and British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 16, July 15, 1935).

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[3] For use of this name in place of *Metachirops* Matschie see Hershkovitz, Proc. Biol. Soc. Washington, vol. 62, p. 11, Mar. 17, 1949. See also, J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, pp. 188–189, Oct. 12, 1900; Tate, Bull. Amer. Mus. Nat. Hist., vol. 76, p. 161, footnote, Oct. 20, 1939; Gilmore, Amer. Journ. Trop. Med., vol. 21, No. 2, pp. 316–317, March 1941; and Hopwood Proc. Zool. Soc. London, vol. 117, pts 2–3, p. 533, Oct. 30, 1947.

Genus METACHIRUS Burmeister (brown-masked opossums)

1854. *Metachirus* Burmeister, Systematische Uebersicht der Thiere Brasiliens, . . . , pt. 1, p. 135. (Type, *Didelphys myosurus* Temminck=*D. nudicaudata* É. Geoffroy-Saint-Hilaire.)

Metachirus nudicaudatus dentaneus Goldman†*

1912. *Metachirus nudicaudatus dentaneus* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 2, Feb. 19, 1912.

Type Locality.—Gatún, Canal Zone, Panamá. *Range.*—From Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 53, Apr. 26, 1920) north to Chontales, Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 284, Dec. 31, 1946).

Genus CALUROMYS[4] J. A. Allen (woolly opossums)

1856. *Philander* Burmeister, Erläuterungen zur Fauna Brasiliens . . . , p. 74. (Type, *Philander cayopollin* Burmeister=*Didelphis philander* Linnaeus.) (Homonym of *Philander* Tiedemann, 1808.)

1900. *Caluromys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 189, Oct. 12, 1900. (Type, *Didelphis philander* Linnaeus.)

1916. *Micoureus* Matschie, Sitzb. Ges. naturf. Freunde Berlin, 1916, No. 8 (October), pp. 259, 269, Dec. 15, 1916; op. cit., 1917, No. 4 (April), p. 281, Sept. 10, 1917. (Type, *Didelphis laniger* Desmarest=*Didelphis lanata* Olfers. Not *Micoureus* Lesson, 1842; type, by subsequent selection, Thomas, 1888, *Didelphis cinerea* Temminck.)

1920. *Mallodelphys* Thomas, Ann. Mag. Nat. Hist., ser. 9, vol. 5, p. 195, February 1920. (New name for *Micoureus* Matschie, 1916, not of Lesson, 1842.)

Subgenus MALLODELPHYS[5] Thomas

Caluromys derbianus derbianus (Waterhouse)*

1841. *Didelphys derbianus* Waterhouse, *in* The naturalist's library (Edit. Jardine), vol. 30 (Mammalia, vol. 11, Marsupials), p. 97.

1913. *Ph*[*ilander*] *l*[*aniger*] *derbianus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 12, p. 358, October 1913.

Type Locality.—Cauca Valley, Colombia. *Range.*—Northward to Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 54, Apr. 24, 1920).

Caluromys derbianus pallidus (Thomas)*

1899. *Philander laniger pallidus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 4, p. 286, October 1899.

1946. *Caluromys derbianus pallidus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 285, Dec. 31, 1946.

Type Locality.—Bogava [Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. *Range.*—Arid Pacific Coast region in western Panamá and north to central Costa Rica (Goodwin, loc. cit.). Recorded also from Puntarenas on Golfo de Nicoya, Costa Rica (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 325, Dec. 5, 1952).

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[4] For use of *Caluromys* J. A. Allen in place of *Philander* Brisson, Regnum animale . . . , ed. 2 p. 207, 1762 (type, by tautonomy, *Philander* Brisson=*Didelphis Philander* Linnaeus), see Hershkovitz, Proc. Biol. Soc. Washington, vol. 62, p. 12, Mar. 17, 1949; and Hopwood, Proc. Zool. Soc. London, vol. 117, pts. 2–3, p. 533, Oct. 30, 1947.

[5] For diagnosis of *Caluromys derbianus* section of woolly opossums in subgenus *Mallodelphys*, see Gilmore, Amer. Journ. Trop. Med., vol. 21, No. 2, p. 318, March 1941.

Caluromys derbianus nauticus (Thomas)

1913. *Philander laniger nauticus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 12, p. 359, October 1913.

Type Locality.—Gobernadora Island, off west coast of Panamá. *Range.*—Recorded also from Brava and Cebaco islands (Thomas, op. cit., p. 360).

Caluromys derbianus canus (Matschie) *

1917. *Micourcus canus* Matschie, Sitzb. Ges. naturf. Freunde Berlin, 1917, No. 4 (April), p. 284, Sept. 10, 1917.

1952. *Caluromys derbianus canus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 324, Dec. 5, 1952.

Type Locality.—Nicaragua.

Caluromys derbianus centralis (Hollister) †*

1914. *Philander centralis* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 103, May 11, 1914.

1946. *Caluromys derbianus centralis* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 285, Dec. 31, 1946.

Type Locality.—Talamanca, Limón, Costa Rica. *Range.*—Forested coastal region of eastern Costa Rica.

Caluromys derbianus fervidus (Thomas) *

1884. *Didelphys derbianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 587, Nov. 29, 1884.

1913. *Philander laniger fervidus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 12, p. 359, October 1913.

1942. *Caluromys derbianus fervidus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 114, May 29, 1942.

Type Locality.—Guatemala. *Range.*—Probably lowlands of east-central Guatemala and northern Honduras; recorded at Ilama, Chamelecón and Catacamas in Honduras (Goodwin, loc. cit.), and at Kate's Lagoon in British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 552, July 10, 1951).

Caluromys derbianus aztecus (Thomas) *

1913. *Philander laniger aztecus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 12, p. 359, October 1913.

Type Locality.—San Juan de la Punta, Veracruz, México. *Range.*—Recorded also from Teapa, Tabasco, México (Thomas, loc. cit.).

Genus CHIRONECTES Illiger (water opossums)

1811. *Chironectes* Illiger, Prodromus systematis mammalium et avium . . . , p. 76. (Type, *Lutra minima* Zimmermann.)

Chironectes argyrodytes Dickey*

1928. *Chironectes argyrodytes* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 15, Feb. 4, 1928.

Type Locality.—Hacienda Zapotitán, La Libertad, El Salvador. Altitude, 1,500 feet. *Range.*—Mountains of El Salvador east to central Honduras; limits of range unknown (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 112, May 29, 1942).

Chironectes panamensis Goldman†*

1884. *Chironectes variegatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 587, Nov. 29, 1884.

1914. *Chironectes panamensis* Goldman, Smithsonian Misc. Coll., vol. 63, No. 5, p. 1, Mar. 14, 1914.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—From Colombia, north in Central America to Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 283, Dec. 31, 1946).

Infraclass EUTHERIA

Superorder MONODELPHIA

Order INSECTIVORA

Superfamily TENRECOIDEA

Family SOLENODONTIDAE

Genus SOLENODON Brandt

1833. *Solenodon* Brandt, Mém. Acad. Imp. Sci. St. Pétersbourg, ser. 6, Sci. Math. Phys. et Nat., vol. 2, p. 459. (Type, *Solenodon paradoxus* Brandt.)

Solenodon paradoxus Brandt*

1833. [*Solenodon*] *paradoxus* Brandt, Mém. Acad. Imp. Sci. St. Pétersbourg, ser. 6, Sci. Math. Phys. et Nat., vol. 2, p. 459.

1884. *Solenodon paradoxus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1887.

Type Locality.—Hispaniola.

Genus ATOPOGALE Cabrera

1925. *Atopogale* Cabrera, Genera mammalium: Insectivora, Galeopithecia (Mus. Nac. Cienc. Nat., Madrid), p. 177. Nov. 29, 1925. (Type, *Solenodon cubanus* Peters.)

Atopogale cubana (Peters)

1861. *Solenodon cubanus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1861, p. 169.

1884. *Solenodon cubanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1925. *Atopogale cubana* Cabrera, Genera mammalium: Insectivora, Galeopithecia (Mus. Nac. Cienc. Nat., Madrid), p. 177, Nov. 29, 1925.

Type Locality.—Mountains near Bayamo, Oriente, southeastern Cuba. *Range.*—South-central and southeastern Cuba; recorded as occurring in mountains near Trinidad and in Sierra Maestra near Bayamo (Barbour, Proc. New England Zool. Club, vol. 23, pp. 2, 4, Mar. 7, 1944).

Atopogale poeyana (Barbour)*

1944. *Solenodon poeyanus* Barbour, Proc. New England Zool. Club, vol. 23, p. 6, Mar. 7, 1944.

Type Locality.—Vicinity of Nipe Bay, Oriente, northeastern Cuba. *Range.*—Mountains of northeastern Cuba; recorded also from Sierra de Toar and near Nabuiabo swamp between Baracoa and Duaba.

Superfamily SORICOIDEA

Family Soricidae (shrews)

Subfamily soricinae

Genus SOREX [6] Linnaeus

1758. *Sorex* Linnaeus, Systema Naturae, ed. 10, vol. 1, p. 53. (Type, *Sorex araneus* Linnaeus.)

Subgenus SOREX Linnaeus

cinereus—group

Sorex cinereus cinereus Kerr*

1792. *Sorex arcticus cinereus* Kerr, The animal kingdom . . ., p. 206.

1827. *Sorex personatus* I. Geoffroy-Saint-Hilaire, Mém. Mus. Hist. Nat., Paris, vol. 15, p. 122. (Eastern United States.)

1884. *Sorex platyrhinus* and *Sorex cooperi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1891. *Sorex idahoensis* Merriam†, North Amer. Fauna No. 5, p. 32, July 30, 1891. (Timber Creek, Lemhi Mountains ["Salmon River Mountains"], Lemhi County, Idaho.)

1925. *Sorex cinereus cinereus* Jackson, Journ. Mamm., vol. 6, No. 1, p. 56, Feb. 9, 1925.

1926. *Sorex frankstounensis* Peterson, Ann. Carnegie Mus., vol. 16, p. 292, March 1926. (Frankstown Cave, near Hollidaysburg, Blair County, Pa.)

Type Locality.—Fort Severn (Severn Settlement, now Severn), mouth of Severn River, southwest side of Hudson Bay, Ontario, Canada. *Range.*—Quebec from Chimo and western end of Gulf of St. Lawrence west, the whole of Ontario, eastern and northern Manitoba, northern Saskatchewan, northern and western Alberta, and Northwest Territories to northern limit of trees, central and southern Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 14, Jan. 24, 1947); and east-central Alaska, south to New Jersey, New York, mountains of West Virginia, North Carolina and Tennessee, northern half of lower peninsula of Michigan (Burt, Mammals of Michigan, p. 93, 1946), and through mountains of western Montana and western Wyoming to northern New Mexico, and to northeastern and central Washington.

Sorex cinereus miscix Bangs*

1899. *Sorex personatus miscix* Bangs, Proc. New England Zool. Club, vol. 1, p. 15, Feb. 28, 1899.

1928. *Sorex cinereus miscix* Jackson, North Amer. Fauna No. 51, p. 50, July 24, 1928.

Type Locality.—Black Bay, Strait of Belle Isle, Labrador. *Range.*—Labrador south of lat. 58° N.; west in Quebec along north shore of Gulf of St. Lawrence at least as far as Moisie River and Bay of Seven Islands (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 14, Jan. 24, 1947).

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[6] Revised by Jackson, North Amer. Fauna No. 51, pp. 30–200, July 24, 1928.

Sorex cinereus acadicus Gilpin*

1867. *Sorex acadicus* Gilpin, Proc. Trans. Nova Scotian Inst. Nat. Sci., vol. 1, pt. 2, p. 2.

1940. *Sorex cinereus acadicus* R. W. Smith, Amer. Midl. Nat., vol. 24, No. 1, p. 219, July 31, 1940.

Type Locality.—Nova Scotia (assumed to be in vicinity of Halifax, Halifax County). *Range.*—Nova Scotia, New Brunswick, Prince Edward Island, and parts of eastern Quebec, Canada.

Sorex cinereus nigriculus Green

1932. *Sorex cinereus nigriculus* Green, Univ. California Publ. Zool., vol. 38, No. 7, p. 387, June 9, 1932.

Type Locality.—Alluvial tidewater marsh on Tuckahoe River, east of Tuckahoe, Cape May County, N. J. *Range.*—Known from type locality only.

Sorex cinereus fontinalis Hollister†*

1895. [*Sorex personatus*] *lesueuri* Merriam, North Amer. Fauna No. 10, p. 61, Dec. 31, 1895. (Part.)

1911. *Sorex fontinalis* Hollister, Proc. U. S. Nat. Mus., vol. 40, p. 378, Apr. 17, 1911. (For status, see Kellogg, Proc. U. S. Nat. Mus., vol. 86, pp. 250–251, Feb. 14, 1939; and Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, pp. 93–94, Sept. 11, 1942.)

1937. *Sorex cinereus fontinalis* Poole, Journ. Mamm., vol. 18, No. 1, p. 96, February 11, 1937.

Type Locality.—Near Beltsville, Prince Georges County, Md. *Range.*—Northern Virginia (Bray, Journ. Mamm., vol. 20, No. 1, p. 102, Feb. 15, 1939), Maryland, eastern Pennsylvania, and Delaware (Poole, loc. cit.).

Sorex cinereus ohioensis Bole and Moulthrop*

1942. *Sorex cinereus ohioensis* Bole and Moulthrop. Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 89, Sept. 11, 1942.

Type Locality.—Hunting Valley, Cuyahoga County, Ohio. *Range.*—Northern Ohio, from Ashtabula County at least as far west as Seneca County.

Sorex cinereus lesueurii (Duvernoy)*

1842. *Amphisorex lesueurii* Duvernoy, Mag. Zool. Anat. Comp. et Pal., livr. 25, p. 33, pl. 50, 1842.

1942. *Sorex cinereus lesueurii* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 95, Sept. 11, 1942.

Type Locality.—Wabash River Valley, Ind. *Range.*—Northwestern Ohio, southern Michigan, Indiana, northern Illinois, southern Wisconsin, and northeastern Iowa (Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 2, Nov. 10, 1943).

Sorex cinereus ugyunak Anderson and Rand*

1945. *Sorex cinereus ugyunak* Anderson and Rand, Canadian Field-Nat., vol. 59, No. 2 (March–April), p. 62, Oct. 16, 1945.

Type Locality.—Tuktoyaktok (Tuktak), about 20 miles southwest of Toker Point, on arctic coast near northeastern corner of Mackenzie River delta, Mackenzie district, Northwest Territories, Canada. Sea level. *Range.*—Arctic tundra region from northwestern side of Hudson Bay in Keewatin district (Chesterfield, 45 miles southwest of Padley Post), west along Arctic Coast to Mackenzie District (Coronation Gulf, Horton River, Harrowby Bay, Tuktak, and Aklavik), and northeastern Arctic Alaska (Hulahula River, Okpilak River near Barter Island), and above timber line in Brooks (or Endicott) Range about 80 miles west of Alaska–Yukon International Boundary (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 15, Jan. 24, 1847). Recorded also at Tolugak Lake, near head of Anaktuvuk River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 465, Nov. 21, 1950).

Sorex cinereus haydeni Baird†*

1858. *Sorex haydeni* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 29, July 14, 1858.

1925. *Sorex cinereus haydeni* Jackson, Journ, Mamm., vol. 6, No. 1, p. 56, Feb. 9, 1925.

Type Locality.—Fort Union, Nebraska (later Fort Buford, now Mondak, Roosevelt County, Mont., near Buford, Williams County, N. Dak.). *Range.*—Extreme east-central Alberta (Islay), southern Saskatchewan, southwestern Manitoba, south through extreme western Minnesota to northwestern Iowa, northern Nebraska, southwestern South Dakota, southeastern Wyoming, and eastern Montana.

Sorex cinereus streatori Merriam†*

1895. *Sorex personatus streatori* Merriam, North Amer. Fauna No. 10, p. 62, Dec. 31, 1895.

1925. *Sorex cinereus streatori* Jackson, Journ. Mamm., vol. 6, No. 1, p. 56, Feb. 9, 1925.

Type Locality.—Yakutat, Alaska. *Range.*—Pacific coast region of North America from southeastern part of Kenai Peninsula, Alaska, along British Columbia coast at Bella Coola, Metlakatla, Observatory Inlet, Port Simpson, and Rivers Inlet, west of Cascades (Anderson, Nat. Mus. Canada, Bull 102 (1946), p. 15, Jan. 24, 1947, and south to western part of northern Cascades and to Cedarville and Jackson on Olympic Peninsula, Washington (Dalquest, Univ. Kansas, Publ. Mus. Nat. Hist., vol. 2, p. 134, Apr. 9, 1948).

Sorex cinereus hollisteri Jackson†*

1900. *Sorex personatus arcticus* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 17, Mar. 14, 1900. (Not *Sorex arcticus* Kerr, 1792.)

1925. *Sorex cinereus hollisteri* Jackson, Journ. Mamm., vol. 6, No. 1, p. 55, Feb. 9, 1925.

Type Locality.—St. Michael, Norton Sound, Alaska. *Range.*—Western Alaska from Franklin Point south to head of Cook Inlet (Anchorage). (Anchorage specimen regarded as *cinereus* by Hall and Kelson, Univ. Kansas Pub. Mus. Nat. Hist., vol. 5, No. 25, p. 327, Dec. 5, 1952.)

Sorex lyelli Merriam†*

1902. *Sorex tenellus lyelli* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 75, Mar. 22, 1902.

1928. *Sorex lyelli* Jackson, North Amer. Fauna No. 51, p. 57, July 24, 1928.

Type Locality.—Mount Lyell [near head of Lyell Fork of Tuolumne River], Tuolumne County, Calif. Altitude, about 10,000 feet. *Range.*—Crest of central Sierra Nevada in California, recorded occurrences from Vogelsang Lake, Mariposa County, and near Williams Butte, Mono County, southeast to Mammoth, Mono County, Calif.; vertical range, 6,900 to 10,350 feet; zonal range, Canadian and Hudsonian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 79, Sept. 26, 1933).

Sorex preblei Jackson†*

1922. *Sorex preblei* Jackson Journ. Washington Acad. Sci., vol. 12, p. 263, June 4, 1922.

Type Locality.—Jordan Valley, Malheur County, Oreg. Altitude, 4,200 feet. *Range.*—Known from eastern Oregon only.

fumeus—group

Sorex fumeus fumeus Miller*

1884. *Sorex forsteri* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1895. *Sorex fumeus* Miller, North Amer. Fauna No. 10, p. 50, Dec. 31, 1895.

Type Locality.—Peterboro, Madison County, N. Y. *Range.*—New Hampshire, Vermont, Connecticut, Rhode Island, and northern New York, south through northwestern New Jersey, Pennsylvania, and western Maryland to northwestern Georgia and Greenville County, northwestern South Carolina (Coleman, Journ. Mamm., vol. 29, No. 3, p. 293, Aug. 31, 1948); westward to south-central Ohio, Mammoth Cave, Edmondson County, Ky. (V. Bailey, Amer. Midl. Nat., vol. 14, No. 5, p. 57, 1933) and southeastern Wisconsin (Racine); locally in Middlesex (London), Oxford and Elgin Counties in southern Ontario; at Pancake Bay, Schreiber, and Thunder Bay on east and north sides of Lake Superior; north in Ontario to Fraserdale; and in Quebec north and east to Lake Edward (Champlain and Quebec Counties), and east on north side of St. Lawrence River to St. Joachim, Montmorency County (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 15, Jan. 24, 1947).

Sorex fumeus umbrosus Jackson†*

1917. *Sorex fumeus umbrosus* Jackson, Proc. Biol. Soc. Washington, vol. 30, p. 149, July 27, 1917.

Type Locality.—James River, Antigonish County, Nova Scotia. *Range.*—Nova Scotia (and probably Cape Breton Island), New Brunswick, Gaspé Peninsula, southeastern Quebec at least as far west as Rivière-du-Loup (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 16, Jan. 24, 1947), and Maine.

arcticus—group

Sorex arcticus arcticus Kerr*

1792. *Sorex arcticus* Kerr, The animal kingdom, p. 206.

1837. *Sorex richardsonii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, pt. 2, p. 383. (Probably plains of Saskatchewan, Canada.)

1877. *Sorex sphagnicola* Coues†, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 3, p. 650, May 15, 1877. (Vicinity of Fort Liard, southwestern Mackenzie, Canada.)

1884. *Sorex sphagnicola* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1925. *Sorex arcticus arcticus* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 127, Nov. 13, 1925.

Type Locality.—Fort Severn (Severn Settlement, now Severn), mouth of Severn River, southwest side of Hudson Bay, Ontario, Canada. *Range.*—From Norman, Mackenzie District, Northwest Territories, southwest to northeastern British Columbia, and southeasterly along Mackenzie and Slave Rivers, northern and central Alberta, central Saskatchewan, and Manitoba, to northwestern North Dakota, north side of Lake Superior in Ontario, and Saguenay County, Quebec (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 16, Jan. 24, 1947).

Sorex arcticus maritimensis R. W. Smith*

1939. *Sorex arcticus maritimensis* R. W. Smith, Journ. Mamm., vol. 20, No. 2, p. 244, May 14, 1939.

Type Locality.—Wolfville, Kings County, Nova Scotia, Canada. *Range.*—Nova Scotia and probably New Brunswick.

Sorex arcticus laricorum Jackson†*

1858. *Sorex pachyurus* Baird†, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 20, July 14, 1858. (Pembina, N. Dak. Not *Sorex pachyurus* Küster, 1835.)

1925. *Sorex arcticus laricorum* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 127, Nov. 13, 1925.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—Eastern North Dakota, northeastern South Dakota, northern and central Minnesota, northern Wisconsin, and northern Michigan; north to southern Manitoba (Emerson and Marchland), northwesterly as far as Aweme and Carberry (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 16, Jan. 27, 1947).

Sorex tundrensis Merriam†*

1900. *Sorex tundrensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 16, Mar. 14, 1900.

Type Locality.—St. Michael, Norton Sound, Alaska. *Range.*—Western and central Alaska from Bristol Bay, Bering Strait and Point Barrow (Hall, Univ. California Publ. Zool., vol. 30, No. 14, p. 419, Mar. 19, 1929) eastward; northern Yukon (Forty Mile) and at Peel River, Mackenzie delta, and Anderson River near Liverpool Bay in northwestern part of Mackenzie District, Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 16, Jan. 24, 1947).

Sorex jacksoni Hall and Gilmore

1932. *Sorex jacksoni* Hall and Gilmore, Univ. California Publ. Zool., vol. 38, No. 9, p. 392, Sept. 17, 1932.

Type Locality.—Sevoonga, 2 miles east of North Cape, St. Lawrence Island, Bering Sea, Alaska. *Range.*—Known from type locality only.

Sorex hydrodromus Dobson

1889. *Sorex hydrodromus* Dobson, Ann. Mag. Nat. Hist., ser. 6, vol. 4, p. 373, November 1889.

Type Locality.—Unalaska Island, Aleutian Islands, Alaska. *Range.*—Known from type locality only.

pribilofensis—group

Sorex pribilofensis Merriam†*

1895. *Sorex pribilofensis* Merriam, North Amer. Fauna No. 10, p. 87, Dec. 31, 1895.

Type Locality.—St. Paul Island, Pribilof Islands, Alaska. *Range.*—Known from type locality only.

merriami—group

Sorex merriami merriami Dobson†*

1890. *Sorex merriami* Dobson, A monograph of the Insectivora, pt. 3, fasc. 1, pl. 23, fig. 6, May 1890.

1939. *Sorex merriami merriami* Benson and Bond, Journ. Mamm., vol. 20, No. 3, p. 348, Aug. 14, 1939.

Type Locality.—Little Bighorn River, about a mile and a half above Fort Custer, Bighorn County, Mont. *Range.*—From northern California and northern Nevada, north to southeastern Washington, east to north-central and south-central Montana (Hooper, Journ. Mamm., vol. 25, No. 1, p. 92, Feb. 18, 1944), southeastern Wyoming (Mickey and Steele, Journ. Mamm., vol. 28, No. 3, p. 294, Sept. 3, 1947), and western North Dakota.

Sorex merriami leucogenys Osgood†*

1909. *Sorex leucogenys* Osgood, Proc. Biol. Soc. Washington, vol. 22, p. 52, Apr. 17, 1909.

1939. *Sorex merriami leucogenys* Benson and Bond, Journ. Mamm., vol. 20, No. 3, p. 348, Aug. 14, 1939.

Type Locality.—Mouth of canyon of Beaver River, about 3 miles from Beaver, Beaver County, Utah. *Range.*—Northeastern Arizona, southern Utah; and southern Nevada, near western border of Esmeralda County (Hall, Mammals of Nevada, p. 119, July 1, 1946).

sclateri—group

Sorex sclateri Merriam†*

1897. *Sorex sclateri* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 228, July 15, 1897.

Type Locality.—Tumbalá, Chiapas, México. Altitude, 5,000 feet. *Range.*—Known from type locality only.

longirostris—group

Sorex longirostris longirostris Bachman*

1837. *Sorex longirostris* Bachman, Journ. Acad. Nat. Sci. Philadelphia, ser. 1, vol. 7, pt. 2, p. 370.

1928. *Sorex longirostris longirostris* Jackson, North Amer. Fauna, No. 51, p. 28, July 1928.

Type Locality.—Hume Plantation, swamps of Santee River [Cat Island, mouth of Santee River], S. C. *Range.*—Atlantic Plain and Piedmont region (except vicinity of Dismal Swamp, Va., inhabited by *fisheri*) from northern Virginia and southern Maryland, south to central Florida (Polk County; see Hill, Journ. Mamm., vol. 26, No. 1, p. 88, Feb. 27, 1945), and from southern Illinois and southwestern Indiana south to central Alabama (Autauga County) and eastern and southwestern Mississippi (Cook, Journ. Mamm., vol. 23, No. 2, p. 218, May 14, 1942). Recorded also from Hatteras Island, N. C. (Engels, Journ. Mamm., vol. 22, No. 4, p. 447, Nov. 13, 1941).

Sorex longirostris fisheri Merriam†*

1895. *Sorex fisheri* Merriam, North Amer. Fauna, No. 10, p. 86, Dec. 31, 1895.

1928. *Sorex longirostris fisheri* Jackson, North Amer. Fauna No. 51, p. 87, July 24, 1928.

Type Locality.—Lake Drummond, Dismal Swamp, Norfolk County, Va. *Range.*—Dismal Swamp, Va. and adjacent part (Chapanoke) of North Carolina.

dispar—group

Sorex dispar Batchelder*

1896. *Sorex macrurus* Batchelder, Proc. Biol. Soc. Washington, vol. 10, p. 133, Dec. 8, 1896. (Not of Lehmann 1822.)

1911. *Sorex dispar* Batchelder, Proc. Biol. Soc. Washington, vol. 24, p. 97, May 15, 1911. (Substitute for *macrurus* Batchelder.)

Type Locality.—Beedes (sometimes called Keene Heights), Essex County, N. Y. *Range.*—Mountains of eastern New York, western Massachusetts, northeastern Pennsylvania, and southern West Virginia. Recorded also from Clingmans Dome (6,642 feet), Swain County, N. C., and along West Prong and Walker Prong, Little Pigeon River, Great Smoky Mountains National Park, Sevier County, Tenn. (Conaway and Pfitzer, Journ. Mamm., vol. 33, No. 1, p. 107, Feb. 18, 1952).

Sorex gaspensis Anthony and Goodwin

1924. *Sorex gaspensis* Anthony and Goodwin, Amer. Mus. Nov., No. 109, p. 1, Mar. 10, 1924.

Type Locality.—Mount Albert, Gaspé Peninsula, Quebec, Canada. Altitude, 2,000 feet. *Range.*—Known from Gaspé Peninsula only.

trowbridgii—group

Sorex trowbridgii trowbridgii Baird†*

1858. *Sorex trowbridgii* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 13, July 14, 1858.

1884. *Sorex trowbridgei* [sic] True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

Type Locality.—Astoria, mouth of the Columbia River, Clatsop County, Oreg. *Range.*—Extreme southwestern British Columbia (Chilliwack Valley, Cultus Lake, Douglas, Hope, Huntingdon, Sumas) north to Fraser River delta and Hope (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 17, Jan. 24, 1947); western Washington and Oregon, and extreme northwestern California (south to mouth of Klamath River). Recorded south to Requa and east to Happy Camp, on Klamath River, and to Stud Horse Cañon in Siskiyou Mountains (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 79, Sept. 26, 1933). Also recorded from Trinity County, Calif. (von Bloeker, Journ, Mamm., vol. 25, No. 3, p. 311, Sept. 8, 1944).

Sorex trowbridgii destructioni Scheffer and Dalquest†*

1942. *Sorex trowbridgii destructioni* Scheffer and Dalquest, Journ. Mamm., vol. 23, No. 3, p. 334, Aug. 14, 1942.

Type Locality.—Destruction Island, Jefferson County, Wash. *Range.*—Destruction Island.

Sorex trowbridgii humboldtensis Jackson†*

1922. *Sorex trowbridgii humboldtensis* Jackson, Journ. Washington Acad. Sci., vol. 12, p. 264, June 4, 1922.

Type Locality.—Carson's Camp, Mad River, Humboldt Bay, Humboldt County, Calif. *Range.*—Coastal strip of Humboldt and Mendocino Counties; recorded definitely from Orick and Hoopa Valley south to vicinity of Mendocino; interiorly to Sherwood; vertical range, near sea level to 2,300 feet; zonal range, Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 79, Sept. 26, 1933).

Sorex trowbridgii montereyensis Merriam†*

1895. *Sorex montereyensis* Merriam, North Amer. Fauna No. 10, p. 79, Dec. 31, 1895.

1922. *Sorex t[rowbridgii] montereyensis* Jackson, Journ. Washington Acad. Sci., vol. 12, p. 262, June 4, 1922.

Type Locality.—Monterey, Monterey County, Calif. *Range.*—Coastal strip of west-central California, from southern Mendocino County south to southern San Luis Obispo County (San Luis Obispo); one record for "Peachtree River," San Rafael Mountains, northern Santa Barbara County; extreme interior occurrences at Mount St. Helena, Napa County; Berkeley, Alameda County; Mount Hamilton, Santa Clara County; and Fremont Peak, Gabilan Range, Monterey County; vertical range, from near sea level to 2,000 feet; zonal range, chiefly Transition, occasionally Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 80, Sept. 26, 1933).

Sorex trowbridgii mariposae Grinnell*

1913. *Sorex montereyensis mariposae* Grinnell, Univ. California Publ. Zool., vol. 10, No. 9, p. 189, Mar. 20, 1913.

1923. *Sorex trowbridgii mariposae* Grinnell, Univ. California Publ. Zool., vol. 21, No. 10, p. 314, Jan. 27, 1923.

Type Locality.—Yosemite Valley [near the old Sentinel Hotel], Mariposa County, Calif. Altitude, 4,000 feet. *Range.*—Extreme south-central Oregon, northern California south along higher inner Coast Ranges to vicinity of Mount Sanhedrin, Mendocino County; east at north to Parker Creek, Warner Mountains, Modoc County, and west to Jackson Lake, Siskiyou County; and northern Sierra Nevada, south on west slope as far as Kaweah River, Tulare County; vertical range, 1,268 to 7,500 feet; zonal range, predominantly Transition, locally also in Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 80. Sept. 26, 1933); and in southwestern Washoe County, western Nevada (Hall, Mammals of Nevada, p. 117, July 1, 1946).

vagrans–obscurus—group

Sorex vagrans vagrans Baird†*

1858. *Sorex vagrans* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 15, July 14, 1858.

Type Locality.—Shoalwater Bay (also known as Willapa Bay), Pacific County, Wash. *Range.*—Southern British Columbia, western Washington, western Oregon, and northwestern California south to San Francisco Bay.

Sorex vagrans vancouverensis Merriam†*

1895. *Sorex vancouverensis* Merriam, North Amer. Fauna No. 10, p. 70, Dec. 31, 1895.

1928. *Sorex vagrans vancouverensis* Jackson, North Amer. Fauna No. 51, p. 106, July 24, 1928.

Type Locality.—Goldstream, Vancouver Island, British Columbia, Canada. *Range.*—Southern half of Vancouver Island, north on east coast to Sayward.

Sorex vagrans nevadensis Merriam†*

1895. *Sorex nevadensis* Merriam, North Amer. Fauna No. 10, p. 71, Dec. 31, 1895.

1928. *Sorex vagrans nevadensis* Jackson, North Amer. Fauna No. 51, p. 107, July 24, 1928.

Type Locality.—Reese River at about 6,000 feet, at line between Lander and Nye Counties, Nev. *Range.*—Central Nevada.

Sorex vagrans halicoetes Grinnell*

1913. *Sorex halicoetes* Grinnell, Univ. California Publ. Zool., vol. 10, No. 9, p. 183, Mar. 20, 1913.

1928. *Sorex vagrans halicoetes* Jackson, North Amer. Fauna No. 51, p. 108, July 24, 1928.

Type Locality.—Salt marsh bordering San Francisco Bay near Palo Alto, Santa Clara County, Calif. *Range.*—Salt marshes bordering south arm of San Francisco Bay, from San Francisco around to West Berkeley; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 81, Sept. 26, 1933).

Sorex vagrans paludivagus von Bloeker

1939. *Sorex vagrans paludivagus* von Bloeker, Proc. Biol. Soc. Washington, vol. 52, p. 93, June 5, 1939.

Type Locality.—Salt marsh at mouth of Elkhorn Slough, Moss Landing, Monterey County, Calif. *Range.*—Insofar as known, confined to coastal salt marsh areas in west-central California, from San Gregorio, San Mateo County, south at least to Seaside Lagoon, Monterey County. Probably also occurs in salt marshes on seaward side of San Francisco Peninsula as far north as Rockaway Beach, San Mateo County, and on Monterey Peninsula as far south as Point Pinos, Monterey County.

Sorex vagrans amoenus Merriam†*

1895. *Sorex amoenus* Merriam, North Amer. Fauna No. 10, p. 69, Dec. 31, 1895.

1899. *Sorex shastensis* Merriam†, North Amer. Fauna No. 16, p. 87, Oct. 28, 1899. (Wagon Camp, Mount Shasta, Siskiyou County, Calif. Altitude 5,700 feet).

1899. *Sorex vagrans amoenus* Merriam, North Amer. Fauna No. 16, p. 87, Oct. 28, 1899.

Type Locality.—Near Mammoth, head of Owens River, east slope of Sierra Nevada Mountains, Mono County, Calif. Altitude, about 8,000 feet. (A. B. Howell, Journ. Mamm., vol. 4, No. 4, p. 266, Nov. 1, 1923). *Range.*—South-central Oregon and northern California, east to Warner Mountains, Modoc County, west to Salmon Mountains, southwestern Siskiyou County; south in Sierra Nevada to Alvord (near Big Pine), Inyo County; vertical range, 3,900 to 8,100 feet; zonal range, Canadian and Upper Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 81, Sept. 26, 1933); and central Nevada from western to eastern border (Hall, Mammals of Nevada, p. 119, July 1, 1946).

Sorex vagrans monticola Merriam†*

1890. *Sorex monticolus* Merriam, North Amer. Fauna No. 3, p. 43, Sept. 11, 1890.

1891. *Sorex dobsoni* Merriam†, North Amer. Fauna No. 5, p. 33, July 30, 1891. (Sawtooth or Alturas Lake, east base of Sawtooth Mountains, Blaine County, Idaho. Altitude, about 7,200 feet.)

1895. *Sorex vagrans monticola* Merriam, North Amer. Fauna No. 10, p. 69, Dec. 31, 1895.

1932. *Sorex melanogenys* Hall, Journ. Mamm., vol. 13, No. 3, p. 260, Aug. 9, 1932. (Marijilda Canyon, Graham Mountains, Graham County, Ariz. For status see Hall, Journ. Mamm., vol. 15, No. 2, p. 155, May 15, 1934.)

Type Locality.—San Francisco Mountain, Coconino County, Ariz. Altitude 11,500 feet. *Range.*—Extreme southern interior of British Columbia, from Similkameen Valley, lower Okanagan Valley, Columbia Valley (Rossland, Trail) to East Kootenay (Newgate, Morrissey) at western foothills of Rocky Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 18, Jan. 24, 1947); eastern Washington, eastern Oregon, northeastern Nevada, Idaho, western Montana, western Wyoming, south through eastern Utah, western Colorado, eastern Arizona, and western New Mexico to southern Chihuahua, México. Also recorded from Clear Creek County, Colo. (von Bloeker, Journ. Mamm., vol. 25, No. 3, p. 311, Sept. 8, 1941).

Sorex vagrans orizabae Merriam†*

1895. *Sorex orizabae* Merriam, North Amer. Fauna No. 10, p. 71, Dec. 31, 1895.

1928. *Sorex vagrans orizabae* Jackson, North Amer. Fauna No. 51, p. 113, July 24, 1928.

Type Locality.—Volcán de Orizaba, Puebla, México. Altitude, 9,500 feet. *Range.*—Mountains of west-central Veracruz, south to Volcán de Popocatépetl, and west to central Michoacán, México.

Sorex milleri Jackson†*

1947. *Sorex milleri* Jackson, Proc. Biol. Soc. Washington, vol. 60, p. 131, Oct. 9, 1947.

Type Locality.—Madera Camp, Sierra del Carmen, Coahuila, México. Altitude, 8,000 feet. *Range.*—Known from type locality only.

Sorex durangae Jackson†*

1925. *Sorex durangae* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 127, Nov. 13, 1925.

Type Locality.—El Salto, Durango, México. *Range.*—Known from type locality only.

Sorex obscurus obscurus Merriam†*

1891. *Sorex vagrans similis* Merriam, North Amer. Fauna No. 5, p. 34, July 30, 1891. (Not of Hensel, 1855.)

1895. *Sorex obscurus* Merriam, North Amer. Fauna No. 10, p. 72, Dec. 31, 1895. (Substitute for *similis* Merriam.)

Type Locality.—Timber Creek, Lemhi Mountains [="Salmon River Mountains"], 10 miles west of Junction, Lemhi County, Idaho. Altitude, 8,200 feet. *Range.*—From central Alaska, southeasterly through southern Yukon (Alaska Highway, Canol Road, Dezadeash Lake, Haines Road), northern and eastern British Columbia, southwestern Mackenzie District, Northwest Territories (Canol Road, Macmillan Pass), Nahanni Mountains, Resolution, Simpson, northern and western Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 18, Jan. 24, 1947); eastern Washington; eastern Oregon; Sierra Nevada in California from McCloud River, Shasta County, south to Olancha Peak, Tulare County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 81, Sept. 26, 1933); Nevada in high Sierra Nevada east of Lake Tahoe (Hall, Mammals of Nevada, p. 121, July 1, 1946); Idaho, western Montana, western Colorado, south to southern Utah and north-central New Mexico. Recorded north to Tolugak Lake, near head of Anaktuvuk River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 465, Nov. 21, 1950).

Sorex obscurus neomexicanus V. Bailey†*

1913. *Sorex obscurus neomexicanus* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 133, May 21, 1913.

Type Locality.—Cloudcroft, Otero County, N. Mex. Altitude, 9,000 feet. *Range.*—Mountains of south-central New Mexico.

Sorex obscurus parvidens Jackson†*

1921. *Sorex obscurus parvidens* Jackson, Journ. Mamm., vol. 2, No. 3, p. 161, Aug. 19, 1921.

Type Locality.—Spring known as Thurman's Camp [now Bluff Lake], western side of San Bernardino Peak, San Bernardino County, Calif. Altitude, 7,500 feet. *Range.*—San Bernardino and San Gabriel Mountains, San Bernardino County, Calif.

Sorex obscurus shumaginensis Merriam†*

1900. *Sorex alascensis shumaginensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 18, Mar. 14, 1900.

1902. *Sorex obscurus shumaginensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 228, July 12, 1902.

Type locality.—Popof Island, Shumagin Islands, Alaska. *Range.*—Western Alaska, from Seward Peninsula southeast to northern part of Kenai Peninsula.

Sorex obscurus mixtus Hall

1938. *Sorex obscurus mixtus* Hall, Amer. Nat., vol. 72, No. 742, p. 462, October 1938.

Type Locality.—Vananda, Texada Island, Georgia Strait, British Columbia, Canada. *Range.*—Texada Island, British Columbia.

Sorex obscurus calvertensis Cowan

1941. *Sorex obscurus calvertensis* Cowan, Proc. Biol. Soc. Washington, vol. 54, p. 103, July 31, 1941.

Type Locality.—Safety Cove, Calvert Island, British Columbia, Canada. *Range.*—Calvert Island and Banks Island, British Columbia.

Sorex obscurus insularis Cowan

1941. *Sorex obscurus insularis* Cowan, Proc. Biol. Soc. Washington, vol. 54, p. 103, July 31, 1941.

Type Locality.—Smythe Island, Bardswell Group, British Columbia, Canada. *Range.*—Smythe, Townsend, and Reginald Islands, British Columbia.

Sorex obscurus alascensis Merriam†*

1895. *Sorex obscurus alascensis* Merriam, North Amer. Fauna No. 10, p. 76, Dec. 31, 1895.

1900. *Sorex glacialis* Merriam†, Proc. Washington Acad. Sci., vol. 2, p. 16, Mar. 14, 1900. (Point Gustavus, on east side of entrance to Glacier Bay, Alaska).

Type Locality.—Yakutat Bay, Alaska. *Range.*—Coast region of Alaska from southern part of Kenai Peninsula south to Juneau; also Sheslay River, northwestern British Columbia.

Sorex obscurus malitiosus Jackson

1919. *Sorex obscurus malitiosus* Jackson, Proc. Biol. Soc. Washington, vol. 32, p. 23, Apr. 11, 1919.

Type Locality.—East side of Warren Island, Alaska. *Range.*—Known only from Warren and Coronation Islands, Alaska.

Sorex obscurus elassodon Osgood†*

1901. *Sorex longicauda elassodon* Osgood, North Amer. Fauna No. 21, p. 35, Sept. 26, 1901.

1905. *Sorex obscurus elassodon* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 450, Dec. 6, 1905.

Type Locality.—Cumshewa Inlet, Moresby Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Certain islands of southeastern Alaska and British Columbia from Admiralty Island, Alaska, south to Moresby Island, Queen Charlotte Islands, British Columbia (except Coronation and Warren Islands, Alaska, inhabited by *malitiosus*), including Admiralty, Baranof, Prince of Wales, Duke, Mitkof, and Forrester Islands, Alaska, and Graham, Langara, and Moresby Islands, British Columbia.

Sorex obscurus longicauda Merriam†*

1895. *Sorex obscurus longicauda* Merriam, North Amer. Fauna No. 10, p. 74, Dec. 31, 1895.

Type Locality.—Wrangell, Alaska. *Range.*—Coastal region of southeastern Alaska and British Columbia from Port Snettisham, Alaska, south to Metlakatla, Dean Channel, Bella Coola region, and Rivers Inlet (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 19, Jan. 24, 1947), as well as certain adjacent islands in Alaska, as Etolin, Gravina, Revillagigedo, Sergief, and Wrangell.

Sorex obscurus prevostensis Osgood†*

1901. *Sorex longicauda prevostensis* Osgood, North Amer. Fauna No. 21, p. 35, Sept. 26, 1901.

1905. *Sorex obscurus prevostensis* Elliot, Field Columb. Mus. Pub. 105, Zool. Ser., vol. 6, p. 450, Dec. 6, 1905.

Type Locality.—North end of Prevost Island (Kunghit Island on some maps), on coast of Houston Stewart Channel, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Known from the type locality only.

Sorex obscurus isolatus Jackson†*

1922. *Sorex obscurus isolatus* Jackson, Journ. Washington Acad. Sci., vol. 12, p. 263, June 4, 1922.

Type Locality.—Mouth of Millstone Creek, Nanaimo, Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island.

Sorex obscurus setosus Elliot*

1899. *Sorex setosus* Elliot, Field. Columb. Mus. Publ. 32, Zool. Ser., vol. 1 (March), p. 274, May 17, 1899.

1918. *Sorex obscurus setosus* Jackson, Proc. Biol. Soc. Washington, vol. 31, p. 127, Nov. 29, 1918.

Type Locality—Happy Lake, Olympic Mountains, Clallam County, Wash. *Range.*—Coastal region of southwestern British Columbia from Rivers Inlet and Owikeno Lake, about lat. 52° N. (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 20, Jan. 24, 1947), western Washington, and extreme northwest-central Oregon (Parkdale), chiefly west of the Cascade Mountains.

Sorex obscurus soperi Anderson and Rand

1945. *Sorex obscurus soperi* Anderson and Rand, Canadian Field-Nat., vol. 59, No. 2 (March–April), p. 47, Oct. 16, 1945.

Type Locality.—Two and one-half miles northwest of Lake Audy, Riding Mountain National Park, southwestern Manitoba, Canada. Altitude 1,740 feet. *Range.*—Higher wooded areas at eastern and northern edges of Great Plains region of Canada, from southwestern Manitoba (Riding Mountain National Park), central Saskatchewan (Prince Albert National Park), and in Cypress Hills in southwestern Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 20, Jan. 24, 1947).

Sorex obscurus permiliensis Jackson†*

1918. *Sorex obscurus permiliensis* Jackson, Proc. Biol. Soc. Washington, vol. 31, p. 128, Nov. 29, 1918.

Type Locality.—Permilia Lake, west base of Mount Jefferson, Cascade Range, Marion County, Oreg. *Range.*—Cascade Mountains (and foothills) of northern Oregon (Mount Hood south to Mount Jefferson).

Sorex obscurus bairdi Merriam†*

1895. *Sorex bairdi* Merriam, North Amer. Fauna No. 10, p. 77, Dec. 31, 1895.

1918. *Sorex obscurus bairdi* Jackson, Proc. Biol. Soc. Washington, vol. 31, p. 127, Nov. 29, 1918.

Type Locality.—Astoria, Clatsop County, Oreg. *Range.*—Extreme northwestern Oregon (Astoria, Netarts, Portland) southeasterly and southeast of Willamette River and west of Cascade Mountains to Prospect, Jackson County.

Sorex yaquinae Jackson†*

1918. *Sorex yaquinae,* Jackson, Proc. Biol. Soc. Washington, vol. 31, p. 127, Nov. 29, 1918.

Type Locality.—Yaquina Bay, Lincoln County, Oreg. *Range.*—West-central Oregon north of Umpqua River, from coast east to Willamette Valley.

Sorex pacificus pacificus Coues†*

1877. *Sorex pacificus* Coues, Bull. U. S. Geol. Surv. Terr., vol. 3, p. 650, May 15, 1877.

1884. *Sorex pacificus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

Type Locality.—Fort Umpqua, mouth of Umpqua River, Douglas County, Oreg. *Range.*—Pacific coast region from mouth of Umpqua River south to Mendocino, Calif.

Sorex pacificus sonomae Jackson†*

1921. *Sorex pacificus sonomae* Jackson, Journ. Mamm., vol. 2, No. 3, p. 162, Aug. 19, 1921.

Type Locality.—Sonoma County side of Gualala River, near Gualala, Calif. *Range.*—Humid coast region of California from vicinity of Point Arena, Mendocino County, south to Inverness, near Point Reyes, Marin County.

stizodon—group

Sorex stizodon Merriam†*

1895. *Sorex stizodon* Merriam, North Amer. Fauna No. 10, p. 98, Dec. 31, 1895.

Type Locality.—San Cristóbal, Chiapas, México. *Range.*—Known from type locality only.

veraepacis—group

Sorex veraepacis veraepacis Alston*

1877. *Sorex verae-pacis* Alston, Proc. Zool. Soc. London, 1877, pt. 3, p. 445, October 1877.

1884. *Sorex verae-pacis* True, Proc. U. S. Nat. Mus. vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

Type Locality.—Cobán, Alta Verapaz, Guatemala. *Range.*—Central and western Guatemala at about lat. 16° N.

Sorex veraepacis chiapensis Jackson†*

1925. *Sorex veraepacis chiapensis* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 129, Nov. 13, 1925.

Type Locality.—San Cristóbal, Chiapas, México. Altitude, 9,500 feet. *Range.*—Central Chiapas, México, to west-southwestern Guatemala.

Sorex veraepacis mutabilis Merriam†*

1895. *Sorex saussurei caudatus* Merriam, North Amer. Fauna No. 10, p. 84, Dec. 31, 1895. (Not of Hodgson, 1849).

1898. *Sorex saussurei mutabilis* Merriam, Science, new ser., vol. 8, p. 782, Dec. 2, 1898. (Substitute for *caudatus* Merriam.)

1925. *Sorex veraepacis mutabilis* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 130, Nov. 13, 1925.

Type Locality.—Reyes (near Cuicatlán), Oaxaca, México. Altitude, 10,200 feet. *Range.*—Central Guerrero west to north-central, and east-central Guerrero; and south to south-central Oaxaca.

Sorex macrodon Merriam†*

1895. *Sorex macrodon* Merriam, North Amer. Fauna No. 10, p. 82, Dec. 31, 1895.

Type Locality.—Orizaba, Veracruz, México. Altitude, 4,200 feet. *Range.*—West-central Veracruz, México.

saussurei—group

Sorex saussurei saussurei Merriam†*

1892. *Sorex saussurei* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 173, Sept. 29, 1892.

Type Locality.—North slope of El Nevado de Colima, Jalisco, México. Altitude, 8,000 feet. *Range.*—Extreme southern Coahuila south through western Tamaulipas, Guanajuato, Hidalgo, and western Puebla to northwestern Oaxaca and central Guerrero, west through northern Michoacán to west-central Jalisco.

Sorex saussurei veraecrucis Jackson†*

1925. *Sorex saussurei veraecrucis* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 128, Nov. 13, 1925.

Type Locality.—Xico, Veracruz, México. Altitude 6,000 feet. *Range.*—North-central part of State of Veracruz south to Mount Zempoaltepec, eastern Oaxaca, México.

Sorex saussurei oaxacae Jackson†*

1925. *Sorex saussurei oaxacae* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 128, Nov. 13, 1925.

Type Locality.—Mountains near Ozolotepec, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Sorex saussurei cristobalensis Jackson†*

1925. *Sorex saussurei cristobalensis* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 129, Nov. 13, 1925.

Type Locality.—San Cristóbal, Chiapas, México. Altitude, 8,400 feet. *Range.*—Known from type locality only.

Sorex saussurei godmani Merriam†*

1897. *Sorex godmani* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 229, July 15, 1897.

1928. *Sorex saussurei godmani* Jackson, North Amer. Fauna No. 51, p. 158, July 24, 1928.

Type Locality.—Volcán Santa María, Quezaltenango, Guatemala. Altitude, 9,000 feet. *Range.*—Known only from Todos Santos and Volcán Santa María, Guatemala.

Sorex saussurei salvini Merriam†*

1897. *Sorex salvini* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 229, July 15, 1897.

1928. *Sorex saussurei salvini* Jackson, North Amer. Fauna No. 51, p. 159, July 24, 1928.

Type Locality.—Calel, Quezaltenango, Guatemala. Altitude, 10,200 feet. *Range.*—Known from type locality only.

Sorex emarginatus Jackson†*

1925. *Sorex emarginatus* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 129, Nov. 13, 1925.

Type Locality.—Sierra Madre, near Bolaños, Jalisco, México. Altitude, 7,600 feet. *Range.*—Known from Sierra Madre near Bolaños, Jalisco, and Plateado, Zacatecas, México. Also recorded from Cerro Potosí, Nuevo León (Koestner, Journ. Mamm., vol. 25, No. 3, p. 288, Sept. 8, 1944).

Sorex ventralis Merriam†*

1895. *Sorex obscurus ventralis* Merriam, North Amer. Fauna No. 10, p. 75, Dec. 31, 1895.

1903. *Sorex ventralis* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3 (February), p. 148, Mar. 20, 1903.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Mountains of northern Puebla and central Oaxaca, México.

Sorex oreopolus Merriam†*

1892. *Sorex oreopolus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 173, Sept. 29, 1892.

Type Locality.—North slope of El Nevado de Colima, Jalisco, México. Altitude, 10,000 feet. *Range.*—Mountains of Jalisco.

ornatus—group

Sorex ornatus ornatus Merriam†*

1895. *Sorex ornatus* Merriam, North Amer. Fauna No. 10, p. 79, Dec. 31, 1895.

1903. *Sorex oreinus* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3 (April), p. 172, May 7, 1903. (Aguaje de las Fresas, Sierra San Pedro Mártir, Baja California, México. Altitude, 6,000 feet.)

Type Locality.—Head of San Emigdio Canyon, Mount Pinos, Kern County, Calif. Altitude about 5,500 feet. *Range.*—From lat. 30° N. in northern Baja California northward chiefly west of desert divides to Dudley and El Portal, in Mariposa County, on western flank of Sierra Nevada; northwest along Coast Ranges to vicinity of Monterey, and east to Little Lake, Inyo County; vertical range, from near sea level (San Diego) up to 9,000 feet (San Jacinto Mountians); zonal range, Lower Sonoran to Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 82. Sept. 26, 1933).

Sorex ornatus relictus Grinnell*

1932. *Sorex ornatus relictus* Grinnell, Univ. California Publ. Zool., vol. 38, No. 8, p. 389, June 9, 1932.

Type Locality.—Excavated slough just outside of east side levee, Buena Vista Lake, Kern County, Calif. Altitude 290 feet. *Range.*—Probably marshlands of upper (southern) portion of floor of San Joaquin Valley, from about where waters of Kings River divide toward San Joaquin River and toward bed of Tulare Lake, respectively, in Kings County, south to vicinity of Bakersfield and Buena Vista Lake, in Kern County; vertical range, below 300 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 83, Sept. 26, 1933).

Sorex ornatus salicornicus von Bloeker

1932. *Sorex ornatus salicornicus* von Bloeker, Proc. Biol. Soc. Washington, vol. 45, p. 131, Sept. 9, 1932.

Type Locality.—Playa del Rey, Los Angeles County, Calif. *Range.*—Coastal marshes in Los Angeles and Ventura Counties.

Sorex ornatus californicus Merriam†*

1895. *Sorex californicus* Merriam, North Amer. Fauna No. 10, p. 80, Dec. 31, 1895.

1922. *Sorex ornatus californicus* Jackson, Journ. Washington Acad. Sci., vol. 12, p. 264, June 4, 1922.

Type Locality.—Walnut Creek [near town of], Contra Costa County, Calif. *Range.*—West-central California, centering in San Francisco Bay region; north to Rumsey, Yolo County, northeast to Auburn, Placer County, southeast to Mendota, Fresno County, and south to Chalk Peak, Monterey County; but not in humid coast belt north of San Mateo County; vertical range, from near sea level up to 3,000 feet; zonal range, mainly Upper Sonoran, entering Lower Sonoran in San Joaquin Valley (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 83, Sept. 26, 1933).

Sorex ornatus salarius von Bloeker

1939. *Sorex ornatus salarius* von Bloeker, Proc. Biol. Soc. Washington, vol. 52, p. 94, June 5, 1939.

Type Locality.—Salt marsh at mouth of Salinas River, Monterey County, Calif. *Range.*—Coastal marshes in Los Angeles and Ventura Counties, Calif.; from Nigger Slough, Los Angeles County, to Point Mugu, Ventura County.

Sorex ornatus lagunae Nelson and Goldman†*

1909. *Sorex lagunae* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 27, Mar. 10, 1909.

1928. *Sorex ornatus lagunae* Jackson, North Amer. Fauna No. 51, p. 169, July 24, 1928.

Type Locality.—La Laguna, Sierra Laguna, Baja California, México. Altitude, 5,500 feet. *Range.*—Known from type locality only.

Sorex willetti von Bloeker

1942. *Sorex willetti* von Bloeker, Bull. Southern California Acad. Sci., vol. 40, No. 3 (December 1941), p. 163, Jan. 31, 1942.

Type Locality.—Avalon Canyon, Santa Catalina Island, Los Angeles County, Calif.

Sorex trigonirostris Jackson†*

1922. *Sorex trigonirostris* Jackson, Journ. Washington Acad. Sci., vol. 12, p. 264, June 4, 1922.

Type Locality.—Ashland, Jackson County, Oreg. Altitude 1,975 feet. *Range.*—Known from near Ashland, Oreg., only.

Sorex sinuosus Grinnell*

1913. *Sorex sinuosus* Grinnell, Univ. California Publ. Zool., vol. 10, No. 9, p. 187, Mar. 20, 1913.

Type Locality.—Grizzly Island, near Suisun, Solano County, Calif. *Range.*—Known only from brackish marshes of Grizzly Island, bordering Suisun Bay.

Sorex juncensis Nelson and Goldman†*

1909. *Sorex californicus juncensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 27, Mar. 10, 1909.

1928. *Sorex juncensis* Jackson, North Amer. Fauna No. 51, p. 172, July 24, 1928.

Type Locality.—Socorro, 15 miles south of San Quintín, Baja California, México. *Range.*—Known from type locality only.

Sorex tenellus Merriam†*

1895. *Sorex tenellus* Merriam, North Amer. Fauna No. 10, p. 81, Dec. 31, 1895.

1902. *Sorex tenellus myops* Merriam†, Proc. Biol. Soc. Washington, vol. 15, p. 76, Mar. 22, 1902. ("White Mountains, California,"=Cottonwood Creek, east slope of White Mountains, Inyo County, Calif.; altitude 9,550 feet; A. B. Howell, Journ. Mamm., vol. 4, No. 4, p. 266, Nov. 1, 1923. For status see Hemphill, Journ. Mamm., vol. 23, No. 2, p. 219, May 14, 1942.)

Type Locality.—"Summit of Alabama Hills" [really Lone Pine Creek at about 4,500 feet altitude, where this creek cuts through the hills], near Lone Pine, Inyo County, Calif. *Range.*—Recorded also from Mineral and Clark Counties, Nev. (Hall, Mammals of Nevada, p. 122, July 1, 1946).

Sorex nanus Merriam†*

1895. *Sorex tenellus nanus* Merriam, North Amer. Fauna No. 10, p. 81, Dec. 31, 1895.

1928. *Sorex nanus* Jackson, North Amer. Fauna No. 51, p. 174, July 24, 1928.

Type Locality.—Estes Park, Larimer County, Colo. *Range.*—Known from the mountains of central and north-central Colorado. Recorded also at Corner Mountain, Albany County, Wyo., 8,500 feet (Mickey, Journ. Mamm., vol. 29, No. 3, p. 294, Aug. 31, 1948) and North Rim of Grand Canyon, Ariz. (Schellbach, Journ. Mamm., vol. 29, No. 3, p. 295, Aug. 31, 1948).

Subgenus NEOSOREX Baird

1858. *Neosorex* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 11, July 14, 1858. (Type, *Neosorex navigator* Baird.)

Sorex palustris palustris Richardson*

1828. *Sorex palustris* Richardson, Zool. Journ., vol. 3, p. 517.

1884. *Neosorex palustris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

Type Locality.—Marshy places from Hudson Bay to the Rocky Mountains, Canada. *Range.*—Central Mackenzie District, Northwest Territories (Fort Rae, Grandin River, lat. 64° N.) south to northeastern British Columbia (Peace River district), east-central Alberta (Edmonton), north-central Saskatchewan (Prince Albert National Park), and central Manitoba to northwestern Minnesota and western Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 20, Jan. 24, 1947).

Sorex palustris labradorensis Burt

1938. *Sorex palustris labradorensis* Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 383, p. 1, Aug. 27, 1938.

Type Locality.—Red Bay, Strait of Belle Isle, Laborador. *Range.*—Recorded also from Cartwright, Labrador, and Astray Lake, Quebec (Johnson, Proc. Biol. Soc. Washington, vol. 64, p. 111, Aug. 24, 1941).

Sorex palustris turneri Johnson†*

1951. *Sorex palustris turneri* Johnson, Proc. Biol. Soc. Washington, vol. 64, p. 110, Aug. 24, 1951.

Type Locality.—Fort Chimo, on eastern bank of Koksoak River, lat. 58°8′ N., long. 68°15′ W., Ungava District, Quebec, Canada. *Range.*—Known from type locality only.

Sorex palustris gloveralleni Jackson*

1915. *Neosorex palustris acadicus* G. M. Allen, Proc. Biol. Soc. Washington, vol. 28, p. 15, Feb. 12, 1915. (Not *Sorex acadicus* Gilpin 1867.)

1926. *Sorex palustris gloveralleni* Jackson, Journ. Mamm., vol. 7, No. 1, p. 57, Feb. 15, 1926.

Type Locality.—Digby, Digby County, Nova Scotia, Canada. *Range.*—Nova Scotia (including Cape Breton Island), northern New Brunswick, and extreme eastern Quebec (Gaspé Peninsula) south of the St. Lawrence River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 21, Jan. 24, 1947). Recorded also from Point St. Charles, Seal River, and Godbout, Quebec, on north shore of St. Lawrence River (Johnson, Proc. Biol. Soc. Washington, vol. 64, p. 112, Aug. 24, 1951).

Sorex palustris hydrobadistes Jackson†*

1926. *Sorex palustris hydrobadistes* Jackson, Journ. Mamm., vol. 7, No. 1, p. 57, Feb. 15, 1926.

Type Locality.—Withee, Clark County, Wisc. *Range.*—Extreme northeastern South Dakota (Fort Sisseton), central Minnesota, easterly across northern Wisconsin and Upper Peninsula of Michigan to northern part of Lower Peninsula of Michigan (Burt, Mammals of Michigan, p. 96, 1946); and to eastern end of Lake Superior in Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 21, January 24, 1947).

Sorex palustris albibarbis (Cope)†*

1862. *Neosorex albibarbis* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 188.

1894. *Sorex albibarbis* Miller, Proc. Boston Soc. Nat. Hist., vol. 26, p. 181, Mar. 24, 1894.

1903. *Sorex palustris albibarbis* Rhoads, The Mammals of Pennsylvania and New Jersey, . . . , p. 191.

1930. *Sorex palustris fimbripes* Green, A contribution to the mammalogy of the North Mountain region of Pennsylvania, p. 11, Mar. 31, 1930. (According to Green, *Sorex fimbripes* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, pt. 2, p. 391, pl. 24, fig. 8, 1837, antedates *albibarbis* Cope. Type locality, high tableland on a branch of Drury's Run, a tributary of the west branch of the Susquehanna River, Lycoming County, Pa. Regarded by Jackson, North Amer. Fauna No. 51, p. 40, July 24, 1928, as a synonym of *Sorex cinereus cinereus* Kerr.)

Type Locality.—Profile Lake, Franconia Mountains, Grafton County, N. H. *Range.*—Southern Quebec, western New Brunswick, eastern and central Ontario, Vermont, northeastern Connecticut (Jackson, Journ. Mamm., vol. 12, No. 3, p. 312, Aug. 24, 1931), eastern and western New York (Eaton, Journ. Mamm., vol. 26, p. 194, July 19, 1945), south to northeastern Pennsylvania.

Sorex palustris punctulatus Hooper*

1942. *Sorex palustris punctulatus* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 463, p. 1, Sept. 15, 1942.

Type Locality.—Six miles northwest of Durbin, Shavers Fork of the Cheat River, Randolph County, W. Va. Altitude, 3,600 feet. *Range.*—Allegheny Mountains of eastern West Virginia, and probably also of southwestern Pennsylvania, western Maryland, and northwestern Virginia. Recorded also from West Prong, Little Pigeon River, Great Smoky Mountains National Park, Sevier County, Tenn. (Conaway and Pfitzer, Journ. Mamm., vol. 33, No. 1, p. 106, Feb. 18, 1952).

Sorex palustris navigator (Baird)†*

1858. *Neosorex navigator* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 11, July 14, 1858.

1884. *Neosorex navigator* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, 29 Nov. 1884.

1895. *Sorex* (*Neosorex*) *palustris navigator* Merriam, North Amer. Fauna, No. 10, p. 92, Dec. 31, 1895.

Type Locality.—Near head of Yakima River, Cascade Mountains, Kittitas County, Wash. *Range.*—From extreme northwestern British Columbia, southern Yukon (Nisutlin River), and adjacent part of Alaska (Haines), approaching coast in Bella Coola region, Stillwater and Chilliwack Valley, south through central and southern British Columbia; the Rocky Mountain region of southwestern Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 21, Jan. 24, 1947); south through mountainous areas of Washington (Dalquest, Univ. Kansas Publ. Zool., vol. 2, p. 141, Apr. 9, 1948), Idaho, and eastern Oregon to central Nevada (Hall, Mammals of Nevada, p. 123, July 1, 1946) and southern Utah, and in Rocky Mountains to northern New Mexico and west-central Arizona; south through Cascade Mountains of Oregon; and in Sierra Nevada of California from Mount Shasta, Siskiyou County, south to Whitney Meadows, Tulare County, also White Mountains, Mono and Inyo Counties, Warner Mountains of eastern Modoc County, Salmon Mountains in Trinity County, and Yolla Bolly Mountains in Trinity and Tehama Counties (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 84, Sept. 26, 1933).

Sorex palustris brooksi Anderson

1934. *Sorex palustris brooksi* Anderson, Canadian Field-Nat., vol. 48, No. 8, p. 134, Nov. 1, 1934.

Type Locality.—Black Creek, Comox district, east coast of Vancouver Island, British Columbia, Canada. Altitude, 150 feet. *Range.*—Southern Vancouver Island and lake district near Victoria.

Sorex alaskanus Merriam†*

1900. *Sorex navigator alaskanus* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 18, Mar. 14, 1900.

1926. *Sorex alaskanus* Jackson, Journ. Mamm., vol. 7, No. 1, p. 58, Feb. 15, 1926.

Type Locality.—Point Gustavus, on east side of entrance to Glacier Bay, Alaska. *Range.*—Known from type locality only.

Subgenus ATOPHYRAX Merriam

1884 *Atophyrax* Merriam, Trans. Linn. Soc. New York, vol. 2, p. 217, August 1884. (Type, *Atophyrax bendirii* Merriam.)

Sorex bendirii bendirii (Merriam)†*

1884. *Atophyrax bendirii* Merriam, Trans. Linn. Soc. New York, vol. 2, p. 217, August 1884.

1884. *Atophyrax bendirei* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1890. *Sorex bendirii* Dobson, A monograph of the Insectivora . . ., pt. 3, fasc. 1, pl. 23, fig. 17 and explanation.

Type Locality.—Near Williamson River, 18 miles southeast of Fort Klamath, Klamath County, Oreg. *Range.*—Extreme southwestern British Columbia at Chilliwack, Cultus Lake, Huntington, and Port Moody (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 22, Jan. 24, 1947), south through southern Cascades and lowlands of western Washington, exclusive of Olympic Peninsula (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 144, Apr. 9, 1948); interior southwestern Oregon; and coast region of California from about lat. 41° N. south nearly to Bodega Bay.

Sorex bendirii palmeri Merriam†*

1895. *Sorex bendirii palmeri* Merriam, North Amer. Fauna No. 10, p. 97, Dec. 31, 1895.

Type Locality.—Astoria, Clatsop County, Oregon. *Range.*—Northwestern Oregon west of Cascade Mountains, southwestern Oregon west of long. 123° W., and extreme northwestern California north of mouth of Klamath River.

Sorex bendirii albiventer Merriam†*

1895. *Sorex bendirii albiventer* Merriam, North Amer. Fauna No. 10, p. 97, Dec. 31, 1895.

Type Locality.—Lake Cushman, Olympic Mountains, Mason County, Wash. *Range.*—Olympic Peninsula of Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 144, Apr. 9, 1948).

Genus MICROSOREX[7] Coues

1877. *Microsorex* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 3, p. 646, May 15, 1877. (Type, *Sorex hoyi* Baird.)

Microsorex hoyi hoyi (Baird)†*

1858. *Sorex hoyi* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 32, July 14, 1858.

1884. *Sorex hoyi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1901. [*Microsorex*] *hoyi* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 377, Mar. 6, 1901.

Type Locality.—Racine, Racine County, Wis. *Range.*—Southeastern British Columbia, southern Alberta, southern Manitoba, southeast through eastern North Dakota, northeastern South Dakota, southern Minnesota, southern Wisconsin, and lower peninsula of Michigan to extreme southern Ontario. Recorded also from Clay County, northwestern Iowa (Scott, Journ. Mamm., vol. 20, No. 2, p. 251, May 15, 1939).

Microsorex hoyi thompsoni (Baird)†*

1858. *Sorex thompsoni* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 34, July 14, 1858.

1925. *Microsorex hoyi thompsoni* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 126, Nov. 13, 1925.

Type Locality.—Burlington, Chittenden County, Vt. *Range.*—Prince Edward Island, Nova Scotia, New Brunswick, southwesterly across Maine, Vermont, northern New York to eastern Ohio.

Microsorex hoyi intervectus Jackson†*

1925. *Microsorex hoyi intervectus* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 125, Nov. 13. 1925.

Type Locality.—Lakewood, Oconto County, Wis. *Range.*—Northwest Territories from Fort Franklin, Great Bear Lake, south to Fort Rae, Fort Robinson, Fort Resolution, Fort Simpson, and Fort Smith; westerly to southern Yukon (Alaska Highway, Irons Creek; Canol Road, Lapie River; Sheldon Lake, Dezadeash Lake, Haines Road), northern British Columbia west to Telegraph Creek; northern Alberta (Slave River and Athabaska Lake), central Saskatchewan (Cumberland district and Prince Albert National Park); northern Manitoba, western Ontario (Favourable Lake and Attawapiscat Lake in Patricia District); east and north to Quebec (Gaspé, Godbout, Lake Edward, and Chimo) and Hopedale on Labrador coast (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 22, Jan. 24, 1947); and south to Upper Peninsula of Michigan and northeastern Wisconsin.

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[7] Revised by Jackson, North Amer. Fauna No. 51, pp. 200–210, July 24, 1928.

Microsorex hoyi winnemana Preble†*

1910. *Microsorex winnemana* Preble, Proc. Biol. Soc. Washington, vol. 23, p. 101, June 24. 1910.

1925. *Microsorex hoyi winnemana* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 126, Nov. 13, 1925.

Type Locality.—Bank of Potomac River, near Stubblefield Falls, Fairfax County, Va. *Range.*—Maryland in vicinity of District of Columbia south to Pisgah National Forest, N. C.

Microsorex hoyi alnorum (Preble)†*

1902. *Sorex* (*Microsorex*) *alnorum* Preble, North Amer. Fauna No. 22, p. 72, Oct. 31, 1902.

1925. *Microsorex hoyi alnorum* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 126, Nov. 13, 1925.

Type Locality.—Robinson Portage (upper Hayes River, about 35 miles southwest of Oxford Lake, at about lat. 54°30′ N., long. 96° W.), Manitoba, Canada. *Range.*—Northeastern Manitoba and extreme northwestern Ontario.

Microsorex hoyi eximius (Osgood)†*

1901. *Sorex* (*Microsorex*) *eximius* Osgood, North Amer. Fauna No. 21, p. 71, Sept. 26, 1901.

1925. *Microsorex hoyi eximius* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 125, Nov. 13, 1925.

Type Locality.—Tyonek, Cook Inlet, Alaska. *Range.*—Western Alaska from Yukon River south to Kenai Peninsula and base of Alaska Peninsula.

Microsorex hoyi washingtoni Jackson†*

1925. *Microsorex hoyi washingtoni* Jackson, Proc. Biol. Soc. Washington, vol. 38, p. 125, Nov. 13, 1925.

Type Locality.—Loon Lake, Stevens County, Wash. *Range.*—Recorded also from Sanders County, Mont. (Koford, Journ. Mamm. vol. 19, No. 3, p. 372, Aug. 18, 1938), and south fork of Flathead River, Flathead County, Mont. (Setzer, Journ. Mamm., vol. 33, No. 3, p. 398, Aug. 19, 1952).

Genus BLARINA[8] Gray (short-tailed shrews)

1838. *Blarina* Gray, Proc. Zool. Soc. London, 1837, pt. 5, p. 124, June 14, 1838. (Type, *Sorex talpoides* Gapper.)

Blarina brevicauda brevicauda (Say)*

1823. *Sorex brevicaudus* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 1, p. 164.

1858. *Blarina brevicauda* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 42, July 14, 1858.

1884. *Blarina brevicauda* True, Proc. U. S. Nat. Mus., vol. 7, (App., Cir. 29), p. 606, Nov. 29, 1884.

Type Locality.—West bank of Missouri River, near Blair, formerly Engineer Cantonment, Washington County, Nebr. *Range.*—Missouri and Mississippi Valleys from northern Kansas and west-central Illinois northwestward over Iowa, eastern Nebraska, eastern South Dakota, eastern North Dakota, western Minnesota, and western Wisconsin; intergrading with *kirtlandi* in Illinois, Wisconsin and northwestern Michigan (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 103, Sept. 11, 1942).

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[8] Revised by Merriam in North Amer. Fauna No. 10, pp. 9–16, Dec. 31, 1895. See also, Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, pp. 99–113, Sept. 11, 1932.

Blarina brevicauda manitobensis R. M. Anderson*

1947. *Blarina brevicauda manitobensis* R. M. Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 23, Jan. 24, 1947.

Type Locality.—Max Lake, Turtle Mountains, Manitoba, Canada. Altitude about 2,100 feet. *Range.*—Southern Manitoba from near eastern boundary west to Turtle Mountains, Riding Mountain National Park, and Dauphin; north to Lake St. Martin and Lake Winnipegosis; probably occurs in northwestern Minnesota and northeastern North Dakota near Canadian boundary.

Blarina brevicauda kirtlandi Bole and Moulthrop*

1942. *Blarina brevicauda kirtlandi* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 99, Sept. 11, 1942.

Type Locality.—The Holden Arboretum, Kirtland Township, Lake County, and Chardon Township, Geauga County, Ohio. (County line bisects type locality.) *Range.*—From northwestern Michigan, central Wisconsin, and central Illinois, east to southeastern West Virginia, eastern Pennsylvania, and southwestern New York.

Blarina brevicauda talpoides (Gapper)*

1830. *Sorex talpoides* Gapper, Zool. Journ. vol. 5, p. 202.

1858. *Blarina angusticeps* Baird†, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 47, July 14, 1858. (Burlington, Chittenden County, Vt. Regarded by Merriam, North Amer. Fauna No. 10, p. 10, Dec. 31, 1895, as a deformed skull. See also Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 111, Sept. 11, 1942).

1902. *Blarina brevicauda talpoides* Bangs, Proc. New England Zool. Club, vol. 3, p. 75, Mar. 31, 1902.

Type Locality.—Between York and Lake Simcoe, Ontario, Canada. *Range.*—Western and southern Ontario (Great Lakes region), most parts of southern Quebec, and western New Brunswick (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 24, January 24, 1947); and in less typical form, New York, northeastern Pennsylvania, New Jersey, and southern New England from Connecticut and Cape Cod at least as far north as Sagadohoc County, Maine (Bole and Moulthrop, loc cit.).

Blarina brevicauda angusta Anderson

1943. *Blarina brevicauda angusta* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 52, Sept. 7, 1943.

Type Locality.—Kelly's Camp, Berry Mountain Brook, near head of Grand Cascapedia River, Gaspé County, Quebec, Canada. Altitude, about 1,600 feet. *Range.*—Gaspé Peninsula from sea level up to about 1,600 feet in interior; and Madawaska County, Baker Lake, Edmundston, and St. Leonard in northwestern New Brunswick (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 23, Jan. 24, 1947).

Blarina brevicauda hooperi Bole and Moulthrop*

1942. *Blarina brevicauda hooperi* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 110, Sept. 11, 1932.

Type Locality.—Lyndon, Caledonia County, Vt. *Range.*—From northern Vermont to Stanstead County, Quebec (see Anderson, Nat. Mus. Canada Bull, 102 (1946), p. 23, Jan. 24, 1947.)

Blarina brevicauda pallida R. W. Smith*

1940. *Blarina brevicauda pallida* R. W. Smith, Amer. Midl. Nat., vol. 24, No. 1, p. 223, July 31, 1940.

Type Locality.—Wolfville, Kings County, Nova Scotia, Canada. *Range.*—Nova Scotia, eastern New Brunswick, Prince Edward Island (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 24, Jan. 24, 1947); and intergrading with *talpoides* in central and southwestern Maine (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 106, Sept. 11, 1942).

Blarina brevicauda aloga Bangs*

1902. *Blarina brevicauda aloga* Bangs, Proc. New England Zool. Club, vol. 3, p. 76, Mar. 31, 1902.

Type Locality.—West Tisbury, Martha's Vineyard Island, Dukes County, Mass. *Range.*—Restricted to Martha's Vineyard.

Blarina brevicauda compacta Bangs*

1902. *Blarina brevicauda compacta* Bangs, Proc. New England Zool. Club, vol. 3, p. 77, Mar. 31, 1902.

Type locality.—Nantucket Island, Nantucket County, Mass. *Range.*—Restricted to Nantucket.

Blarina brevicauda carolinensis (Bachman)*

1837. *Sorex carolinensis* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, pt. 2, p. 366.

1895. *Blarina brevicauda carolinensis* Merriam, North Amer. Fauna No. 10, p. 13, Dec. 31, 1895.

Type locality.—Eastern South Carolina. *Range.*—Virginia to central Florida, and westward around Appalachian Mountain system to Kentucky, Arkansas and eastern Texas (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 107, Sept. 11, 1942), and southeastern Kansas (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, p. 43, Aug. 25, 1952).

Blarina brevicauda peninsulae Merriam†*

1895. *Blarina carolinensis peninsulae* Merriam, North Amer. Fauna No. 10, p. 14, Dec. 31, 1895.

1897. [*Blarina brevicauda*] *peninsulae* Trouessart, Catalogus Mammalium . . . , fasc. 1, p. 188.

Type Locality.—Miami River, Dade County, Fla. *Range.*—Peninsula of Florida, south of lat. 28° N.

Blarina brevicauda churchi Bole and Moulthrop*

1942. *Blarina brevicauda churchi* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 109, Sept. 11, 1942.

Type locality.—Roan Mountain, Mitchell County, N. C. Altitude, about 6,000 feet. *Range.*—Presumably higher portions of Appalachian Mountains in western North Carolina and eastern Tennessee. (Specimens from mountainous parts of eastern Tennessee regarded as *churchi* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 328, Dec. 5, 1952.)

Blarina brevicauda minima Lowery*

1943. *Blarina brevicauda minima* Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 218, Nov. 22, 1943.

Type Locality.—Comite River, 13 miles northeast of Baton Rouge, East Baton Rouge Parish, La. *Range.*—Extreme lower Mississippi River Valley and central Gulf coast region. Recorded also from Joaquin and Big Thicket, 8 miles northeast of Sour Lake in eastern Texas (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 329, Dec. 5, 1952).

Blarina brevicauda hulophaga Elliot*

1899. *Blarina brevicauda hulophaga* Elliot, Field Columb. Mus. Publ. 38, Zool. Ser., vol. 1, p. 287, May 25, 1899.

Type Locality.—Dougherty, Murray County, Okla. *Range.*—From Dougherty, Murray County, central southern Oklahoma, northeast at least as far as Tulsa, Okla. (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 108, Sept. 11, 1942.)

Blarina brevicauda plumbea Davis

1941. *Blarina brevicauda plumbea* Davis, Journ. Mamm., vol. 22, No. 3, p. 317, Aug. 14, 1941.

Type Locality.—Half mile west of Marano Mill, Aransas County, Tex. *Range.*—Known from Aransas National Wildlife Refuge in Aransas County, Tex., only.

Blarina telmalestes Merriam†*

1895. *Blarina telmalestes* Merriam, North Amer. Fauna No. 10, p. 15, Dec. 31, 1895.

Type Locality.—Lake Drummond, Dismal Swamp, Norfolk County, Va. *Range.*—Dismal Swamp of extreme southeastern Virginia.

Blarina costaricensis J. A. Allen

1891. *Blarina costaricensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 205, Apr. 17, 1891. (Regarded by Merriam, North Amer. Fauna No. 10, p. 10, Dec. 31, 1895, as identical with *brevicauda*, but this determination was questioned by J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 34, Mar. 11, 1897. See also, Bole and Moulthrop, Sci. Publ. Cleveland Mus., vol. 5, No. 6, pp. 112–113, Sept. 11, 1942.)

Type locality.—La Carpintera, Costa Rica or upper Mississippi Valley (see Merriam, op. cit., p. 12).

Genus CRYPTOTIS[9] Pomel

1848. *Cryptotis* Pomel, Arch. Sci. Phys. Nat. Genève, vol. 9, p. 249, Nov. 1848. (Type, *Sorex cinereus* Bachman = *Sorex parvus* Say.)

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[9] Revised by Merriam, under the name *Blarina*, North Amer. Fauna No. 10, pp. 16–31. Dec. 31, 1895.

Cryptotis parva parva (Say) *

1823. *Sorex parvus* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 1, p. 163.

1884. *Blarina cinerea* and *Sorex parvus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1912. *Cryptotis parva* Miller, U. S. Nat. Mus. Bull. 79, p. 24, Dec. 31, 1912.

Type Locality.—West bank of Missouri River, near Blair, formerly Engineer Cantonment, Washington County, Nebr. *Range.*—From eastern Texas (Davis, Journ. Mamm., vol. 22, No. 4, p. 413, Nov. 13, 1941), and northwestern Texas (W. H. Stickel and L. F. Stickel, Journ. Mamm., vol. 29, No. 3, pp. 292–293, Aug. 31, 1948), southwestern Kansas (Sprague, Journ. Mamm., vol. 19, No. 2, p. 246, May 12, 1938), northeastern Colorado (Miller, Journ. Mamm., vol. 5, No. 3, p. 199, Aug. 11, 1924), northeast to southern Michigan (Burt, Mammals of Michigan, p. 100, 1946), southern Ontario (Snyder, Journ. Mamm., vol. 10, No. 1, p. 79, Feb. 11, 1929) and Connecticut (Goodwin, Journ. Mamm., vol. 23, No. 3, p. 336, Aug. 14, 1942), and south to South Carolina (Chamberlain, Journ. Mamm., vol. 10, No. 3, p. 250, Aug. 10, 1929), Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 22, Oct. 28, 1921) and Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 217, Nov. 22, 1943).

Cryptotis parva elasson Bole and Moulthrop

1942. *Cryptotis parva elasson* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 97, Sept. 11, 1942.

Type Locality.—Bettsville, Seneca County, Ohio. *Range.*—Ohio, intergrading with *harlani* along Ohio-Indiana boundary.

Cryptotis parva harlani (Duvernoy) *

1842. *Brachysorex harlani* Duvernoy, Mag. Zool., Anat. Comp. et Pal., Paris, livr. 25, p. 40, pl. 53.

1942. *Cryptotis parva harlani* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, pp. 96–97.

Type Locality.—New Harmony, Posey County, southwestern Indiana. *Range.*—Indiana (Recorded by Bole and Moulthrop from southwestern and northeastern parts of the state).

Cryptotis parva berlandieri (Baird) †*

1858. *Blarina berlandieri* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 53, July 14, 1858.

1895. *Blarina berlandieri* Merriam, North Amer. Fauna No. 10, p. 20, Dec. 31, 1895.

1912. *Cryptotis berlandieri* Miller, U. S. Nat. Mus. Bull. 79, p. 25, Dec. 31, 1912.

1941. *Cryptotis parva berlandieri* Davis, Journ. Mamm., vol. 22, No. 4, p. 413, Nov. 13, 1941.

Type Locality.—Matamoros, Tamaulipas, México. *Range.*—Lower Rio Grande Valley, on both sides of river, north to Frio County, Tex., and eastward along coast region of southern Texas to Nueces County (Davis, loc. cit.). Also recorded from Boca del Río, Veracruz, México (Davis, Journ. Mamm., vol. 25, No. 4, p. 376, Dec. 12, 1944).

Cryptotis floridana (Merriam) †*

1895. *Blarina floridana* Merriam, North Amer. Fauna No. 10, p. 19, Dec. 31, 1895. (For status see Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 208, March 1898).

1912. *Cryptotis floridana* Miller, U. S. Nat. Mus. Bull. 79, p. 25, Dec. 31, 1912.

Type Locality.—Chester Shoal, 11 miles north of Cape Canaveral, Brevard County, Fla. *Range.*—Peninsular Florida to southeast Georgia (Bangs, op. cit., p. 209, March 1898).

Cryptotis pergracilis pergracilis (Elliot) *

1903. *Blarina pergracilis* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3 (February), p. 149, Mar. 20, 1903.

1911. *Cryptotis pergracilis* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 223, Oct. 31, 1911.

Type Locality.—Ocotlán, Jalisco, México.

Cryptotis pergracilis pueblensis Jackson†*

1933. *Cryptotis pergracilis pueblensis* Jackson, Proc. Biol. Soc. Washington, vol. 46, p. 79, Apr. 27, 1933.

Type locality.—Huauchinango, Puebla, México. Altitude, 5,000 feet.

Cryptotis pergracilis nayaritensis Jackson†*

1933. *Cryptotis pergracilis nayaritensis* Jackson, Proc. Biol. Soc. Washington, vol. 46, p. 79, Apr. 27, 1933.

Type Locality.—Tepic, Nayarit, México. Altitude, 3,000 feet.

Cryptotis pergracilis macra Miller†*

1911. *Cryptotis pergracilis macer* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 223, Oct. 31, 1911.

Type Locality.—Near Guanajuato City, Guanajuato, México.

Cryptotis obscura (Merriam) †*

1895. *Blarina obscura* Merriam, North Amer. Fauna No. 10, p. 23, Dec. 31, 1895.

1912. *Cryptotis obscura* Miller, U. S. Nat. Mus. Bull. 79, p. 26, Dec. 31, 1912.

Type Locality.—Tulancingo, Hidalgo, México. Altitude, 8,500 feet.

Cryptotis soricina (Merriam) †*

1895. *Blarina soricina* Merriam, North Amer. Fauna No. 10, p. 22, Dec. 31, 1895.

1911. *C[ryptotis] soricina* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 221, Oct. 31, 1911.

Type Locality.—Tlalpan, 10 miles south of the city of México, Distrito Federal, México. Altitude, 7,600 feet.

Cryptotis alticola (Merriam) †*

1895. *Blarina alticola* Merriam, North Amer. Fauna No. 10, p. 27, Dec. 31, 1895.

1912. *Cryptotis alticola* Miller, U. S. Nat. Mus. Bull. 79, p. 27, Dec. 31, 1912.

Type Locality.—Volcán de Popocatépetl, México, México. Altitude, 11,500 feet. *Range.*—Higher slopes of Volcán de Popocatépetl and mountains near Salazar and Ajusco, south of city of México, from 9,500 to 12,000 feet altitude.

Cryptotis nelsoni (Merriam) †*

1895. *Blarina nelsoni* Merriam, North Amer. Fauna No. 10, p. 26, Dec. 31, 1895.

1912. *Cryptotis nelsoni* Miller, U. S. Nat. Mus. Bull. 79, p. 27, Dec. 31, 1912.

Type Locality.—Volcán de Tuxtla, Veracruz, México. Altitude, 4,800 feet.

Cryptotis mexicana mexicana (Coues) †*

1877. *Blarina* (*Soriciscus*) *mexicana* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 3, p. 652, May 15, 1877.

1884. *Blarina mexicana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1911. *Cryptotis mexicana* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 221, Oct. 31, 1911.

Type Locality.—Jalapa, Veracruz, México. *Range.*—Tropical areas of southeastern México (Veracruz and Oaxaca).

Cryptotis mexicana peregrina (Merriam) †*

1895. *Blarina mexicana peregrina* Merriam, North Amer. Fauna No. 10, p. 24, Dec. 31, 1895.

1911. *C[ryptotis] mexicana peregrina* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 222, Oct. 31, 1911.

Type Locality.—Mountains 15 miles west of city of Oaxaca, Oaxaca, México. Altitude, 9,500 feet.

Cryptotis mexicana machetes (Merriam) †*

1895. *Blarina mexicana machetes* Merriam, North Amer. Fauna No. 10, p. 26, Dec. 31, 1895.

1912. *Cryptotis mexicana machetes* Miller, U. S. Nat. Mus. Bull. 79, p. 27, Dec. 31, 1912.

Type Locality.—Mountains near Ozolotepec, Oaxaca, México. Altitude, 10,000 feet.

Cryptotis mexicana goldmani (Merriam) †*

1895. *Blarina mexicana goldmani* Merriam, North Amer. Fauna No. 10, p. 25, Dec. 31, 1895.

1912. *Cryptotis mexicana goldmani* Miller, U. S. Nat. Mus. Bull. 79, p. 27, Dec. 31, 1912.

Type Locality.—Mountains near Chilpancingo, Guerrero, México. Altitude, 10,000 feet.

Cryptotis guerrerensis Jackson†*

1933. *Cryptotis guerrerensis* Jackson, Proc. Biol. Soc. Washington, vol. 46, p. 80, Apr. 27, 1933.

Type Locality.—Omilteme, Guerrero, México. Altitude, about 8,000 feet.

Cryptotis frontalis Miller†*

1911. *Cryptotis frontalis* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 222, Oct. 31, 1911.

Type Locality.—Near city of Tehuantepec, Oaxaca, México.

Cryptotis magna (Merriam) †*

1895. *Blarina magna* Merriam, North Amer. Fauna No. 10, p. 28, Dec. 31, 1895.

1912. *Cryptotis magna* Miller, U. S. Nat. Mus. Bull. 79, p. 28, Dec. 31, 1912.

Type Locality.—Totontepec, Oaxaca, México. Altitude, 6,800 feet. Range.—Mountains about Totontepec and Mount Zempoaltepec, Oaxaca, from 6,800 to 8,000 feet altitude.

Cryptotis fossor (Merriam) †*

1895. *Blarina fossor* Merriam, North Amer. Fauna No. 10, p. 28, Dec. 31, 1895.

1912. *Cryptotis fossor* Miller, U. S. Nat. Mus. Bull. 79, p. 28, Dec. 31, 1912.

Type Locality.—Mount Zempoaltepec, Oaxaca, México. Altitude, 10,500 feet. *Range.*—Higher slopes of Mount Zempoaltepec, from 8,200 to 10,500 feet altitude.

Cryptotis griseoventris Jackson†*

1933. *Cryptotis griseoventris* Jackson, Proc. Biol. Soc. Washington, vol. 46, p. 80, Apr. 27, 1933.

Type Locality.—San Cristóbal, Chiapas, México. Altitude, 9,500 feet.

Cryptotis mayensis (Merriam) †*

1901. *Blarina mayensis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 559, Nov. 29, 1901.

1912. *Cryptotis mayensis* Miller, U. S. Nat. Mus. Bull. 79, p. 26, Dec. 31, 1912.

Type Locality.—Maya ruin at Chichén-Itzá, Yucatán, México.

Cryptotis micrura (Tomes) *

1862. *Sorex micrurus* Tomes, Proc. Zool. Soc. London, 1861, pt. 3, p. 279, April 1862.

1895. *Blarina tropicalis* Merriam, North Amer. Fauna No. 10, p. 21, Dec. 31, 1895. (Cobán, Guatemala.)

Type Locality.—Cobán, Alta Verapaz, Guatemala. Altitude, about 4,400 feet. *Range.*—Tropical regions from Cartago, Costa Rica (Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 7, Oct. 8, 1943), north to western Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 116, May 29, 1942), Guatemala, British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 17, July 15, 1935), and southern México in the States of Chiapas (Hooper, Journ. Mamm., vol. 28, No. 1, p. 43, Feb. 17, 1947), Oaxaca, and Veracruz.

Cryptotis goodwini Jackson†*

1933. *Cryptotis goodwini* Jackson, Proc. Biol. Soc. Washington, vol. 46, p. 81, Apr. 27, 1933.

Type Locality.—Calel, Quezaltenango, Guatemala. Altitude, 10,200 feet. *Range.*—Calel and Tecpán, Guatemala, and probably western Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 116, May 29, 1942).

Cryptotis olivacea (J. A. Allen)

1908. *Blarina olivaceus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 669, Oct. 13, 1908.

1912. *Cryptotis olivaceus* Miller, U. S. Nat. Mus. Bull. 79, p. 26, Dec. 31, 1912.

Type Locality.—San Rafael del Norte, Jinotega, Nicaragua. Altitude, about 5,000 feet. *Range.*—Highlands of north-central Nicaragua and probably south-central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 116, May 29, 1942).

Cryptotis nigrescens (J. A. Allen) *

1895. *Blarina (Soriciscus) nigrescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 339, Nov. 8, 1895.

1911. *C[ryptotis] nigrescens* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 222, Oct. 31, 1911.

Type Locality.—San Isidro, San José, Costa Rica. Altitude, about 4,000 feet. *Range.*—Mountains of central Costa Rica and probably north to central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 288, Dec. 31, 1946).

Cryptotis jacksoni Goodwin†*

1944. *Cryptotis jacksoni* Goodwin, Amer. Mus. Nov., No. 1267, p. 1, Dec. 10, 1944.

Type Locality.—Volcán Irazú, Cartago, Costa Rica. Altitude, about 10,000 feet. *Range.*—Known from type locality only.

Cryptotis orophila (J. A. Allen) *

1895. *Blarina (Soriciscus) orophila* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 340, Nov. 8, 1895.

1911. *C[ryptotis] orophila* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 221, Oct. 31, 1911.

Type Locality.—Volcán Irazú [=Irazú Range], Cartago, Costa Rica (see Goodwin, Amer. Mus. Nov., No. 1267, p. 2, Dec. 10, 1944). *Range.*—Known from Cartago, Alajuela, San José and Limón Provinces, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 289, Dec. 31, 1946).

Cryptotis gracilis Miller†*

1911. *Cryptotis gracilis* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 221, Oct. 31, 1911.

Type Locality.—Head of Río Lari, near base of Pico Blanco, Talamanca, Costa Rica. Altitude, about 6,000 feet. *Range.*—Eastern slopes of Cordillera de Talamanca (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 289, Dec. 31, 1946).

Cryptotis endersi Setzer

1950. *Cryptotis endersi* Setzer, Journ. Washington Acad. Sci., vol. 40, No. 9, p. 300, Sept. 29, 1950.

Type Locality.—Cylindro, Chiriquí, Panamá. *Range.*—Known from type locality only.

Cryptotis zeteki Setzer†*

1950. *Cryptotis zeteki* Setzer, Journ. Washington Acad. Sci., vol. 40, No. 9, p. 299, Sept. 29, 1950.

Type Locality.—Cerro Punta, lat. 8°42′ N., long. 82°48′ W., Chiriquí, Panamá. Altitude, 6,500 feet. *Range.*—Known from type locality only.

Cryptotis mera Goldman†*

1912. *Cryptotis merus* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 17, Sept. 20, 1912.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 4,500 feet.

Genus NOTIOSOREX[10] Coues

1877. *Notiosorex* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 3, p. 646, May 15, 1877. (Type, *Sorex* (*Notiosorex*) *crawfordi* Coues.)

Notiosorex crawfordi crawfordi (Coues)†*

1877. *Sorex* (*Notiosorex*) *crawfordi* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 3, p. 651, May 15, 1877.

1884. *Sorex crawfordi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1895. *Notiosorex crawfordi* Merriam, North Amer. Fauna No. 10, p. 32, Dec. 31, 1895.

Type Locality.—Near old Fort Bliss, about 2 miles above El Paso, El Paso County, Tex. *Range.*—From Bexar and Nueces Counties, Tex. (Bailey, North Amer. Fauna No. 25, p. 207, Oct. 24, 1905) west to Santa Barbara County, Calif. (von Bloeker, Journ. Mamm., vol. 25, No. 3, p. 312 Sept. 8, 1944); south to Cape region of Peninsula of Baja California and southeastern Arizona (Blossom, Journ. Mamm., vol. 14, No. 1, p. 70, Feb. 14, 1933); north to southern Nevada (Hall, Mammals of Nevada, p. 127, July 1, 1946), northwestern New Mexico (Bailey, North Amer. Fauna No. 53 (December 1931), p. 369, Mar. 1, 1932. See also Fisher, Journ. Mamm., vol. 22, No. 3, pp. 263–269, Aug. 14, 1941), Natural Dam, Crawford County, Ark., and southeastern Oklahoma (Sealander, Journ. Mamm., vol. 33, No. 1, pp. 105–106, Feb. 18, 1952).

Notiosorex crawfordi evotis (Coues)†*

1877. *Sorex* (*Notiosorex*) *evotis* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 3, p. 652, May 15, 1877.

1895. *Notiosorex crawfordi evotis* Merriam, North Amer. Fauna No. 10, p. 34, Dec. 31, 1895.

Type Locality.—Mazatlán, Sinaloa, México. *Range.*—Recorded 21 miles southwest of Guadalajara, Jalisco, México (Twente and Baker, Journ. Mamm., vol. 32, No. 1, p. 121, Feb. 15, 1951).

Genus MEGASOREX Hibbard

1950. *Megasorex* Hibbard, Contr. Mus. Paleont. Univ. Michigan, vol. 8, No. 6, p. 127, June 29, 1950. (Type, *Notiosorex gigas* Merriam.)

Megasorex gigas (Merriam)†*

1897. *Notiosorex gigas* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 227, July 15, 1897.

1950. *Megasorex gigas* Hibbard, Contr. Mus. Paleont. Univ. Michigan, vol. 8, No. 6, p. 128, June 29, 1950.

Type Locality.—Mountains at Milpillas, near San Sebastián, Jalisco, México.

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[10] Revised by Merriam, North Amer. Fauna No. 10, pp. 31–34, Dec. 31, 1895.

Family TALPIDAE (moles)

Subfamily SCALOPINAE

Genus NEÜROTRICHUS [11] Günther

1880. *Neürotrichus* Günther, Proc. Zool. Soc. London, 1880, pt. 3, p. 441, October 1880. (Type, *Urotrichus gibbsii* Baird.)

Neürotrichus gibbsii gibbsii (Baird)†*

1858. *Urotrichus gibbsii* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 76, July 14, 1858.

1880. *Neurotrichus* [sic] *gibbsi* Günther, Proc. Zool. Soc. London, 1880, pt. 3, pl. 42, October 1880.

1884. *Neürotrichus gibbsii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1899. *Neürotrichus gibbsi major* Merriam†, North Amer. Fauna No. 16, p. 88, Oct. 28, 1899. (Carberry Ranch, between Mount Shasta and Mount Lassen, Shasta County, Calif. Altitude, 4,100 feet.)

Type Locality.—White River Pass [=Naches Pass, altitude, 4,500 feet; see Dalquest and Burgner, Murrelet, vol. 22, No. 1, p. 12, Apr. 30, 1941], Pierce County, Wash. *Range.*—Extreme southwestern British Columbia north to North Vancouver, western Washington and Oregon west of Cascade Mountains, south in coast region to Eureka, Humboldt County, Calif., and in interior, west of Sierra Nevada, to South Yolla Bolly Mountain, Calif.

Neürotrichus gibbsii minor Dalquest and Burgner*

1941. *Neürotrichus gibbsii minor* Dalquest and Burgner, Murrelet, vol. 22, No. 1, p. 12, Apr. 30, 1941.

Type Locality.—University of Washington campus, Seattle, King County, Wash. *Range.*—Lowlands of western Washington; marginal records, Mt. Vernon, Cottage Lake, and Yacolt (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 124, Apr. 9, 1948).

Neürotrichus gibbsii hyacinthinus Bangs*

1897. *Neürotrichus gibbsi hyacinthinus* Bangs, Amer. Nat., vol. 31, p. 240, March 1897.

Type Locality.—Nicasio, Marin County, Calif. *Range.*—Narrow humid coast belt, from Cuddeback, Humboldt County, south as far as near Watsonville, Santa Cruz County, and vicinity of Fremont Peak, near north end of Gabilan Range, Monterey County, Calif.; vertical range, below 800 feet; zonal range, chiefly Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 79, Sept. 26, 1933).

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[11] Revised by True, Proc. U. S. Nat. Mus., vol. 19, pp. 98-106, Dec. 21, 1896, and Jackson, North Amer. Fauna No. 38, pp. 92–98, Sept. 30, 1915.

Genus SCAPANUS[12] Pomel

1848. *Scapanus* Pomel, Arch. Sci. Phys. Nat. Genève, vol. 9, p. 247. (Type, *Scalops townsendii* Bachman.)

Scapanus townsendii (Bachman)*

1839. *Scalops townsendii* Bachman, Journ. Acad. Nat. Sci., Philadelphia, vol. 8, pt. 1, p. 58.

1848. *Scapanus tow[n]sendii* Pomel, Arch. Sci. Phys. Nat. Genève, vol. 9, p. 247.

1884. *Scapanus townsendii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

Type Locality.—Vicinity of Vancouver, Clark County, Wash. (See True, Proc. U. S. Nat. Mus., vol. 19, p. 63, Dec. 21, 1896.) *Range.*—Extreme northwestern California, Oregon, and Washington west of Cascade Mountains; north to Huntingdon in extreme southwestern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 12, Jan. 24, 1947).

Scapanus orarius orarius True†*

1896. *Scapanus orarius* True, Proc. U. S. Nat. Mus., vol. 19, p. 52, Dec. 21, 1896.

Type Locality.—Shoalwater [=Willapa] Bay, Pacific County, Wash. *Range.*—Humid coast region of northern California (north of Mendocino), Oregon, western Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 130, Apr. 9, 1948) and extreme southwestern British Columbia.

Scapanus orarius schefferi Jackson†*

1915. *Scapanus orarius schefferi* Jackson, North Amer. Fauna No. 38, p. 63, Sept. 30, 1915.

Type Locality.—Walla Walla, Walla Walla County, Wash. *Range.*—Southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 130, Apr. 9, 1948) and from Cascades east to Blue Mountains in northern Oregon.

Scapanus orarius yakimensis Dalquest and Scheffer

1944. *Scapanus orarius yakimensis* Dalquest and Scheffer, Murrelet, vol. 25, No. 2, (May–August), p. 27, Sept. 19, 1944.

Type Locality.—Near (¾ mile north of) Union Gap, Yakima County, Wash. *Range.*—Yakima Valley, Wash. (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 130, Apr. 9, 1948).

Scapanus latimanus latimanus (Bachman)*

1842. *Scalops latimanus* Bachman, Boston Journ. Nat. Hist., vol. 4, p. 34.

1907. *Scapanus latimanus* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 52, Apr. 18, 1907.

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[12] Revised by True, Proc. U. S. Nat. Mus., vol. 19, pp. 47–67, Dec. 21, 1896, and Jackson, North Amer. Fauna No. 38, pp. 54–76, Sept. 30, 1915; races of *S. latimanus* revised by F. G. Palmer, Journ. Mamm., vol. 18, No. 3, pp. 280–314, Aug. 14, 1937.

Type Locality.—Santa Clara, Santa Clara County, Calif. *Range.*—Coastal region of California south of San Francisco Bay and entirely west of San Joaquin Valley, south at least to Santa Margarita, San Luis Obispo County; vertical range from near sea level (Seaside, Monterey County) to 4,400 feet (San Benito Mountain, San Benito County). Zonal range, Lower Sonoran through Transition.

Scapanus latimanus parvus F. G. Palmer

1937. *Scapanus latimanus parvus* F. G. Palmer, Journ. Mamm., vol. 18, No. 3, p. 300, Aug. 14, 1937.

Type Locality.—Alameda Island, Alameda County, Calif. *Range.*—So far as known confined to island of Alameda. Vertical range all within a few feet of sea level; zonal range, Upper Sonoran.

Scapanus latimanus insularis F. G. Palmer*

1937. *Scapanus latimanus insularis* F. G. Palmer, Journ. Mamm., vol. 18, No. 3, p. 297, Aug. 14, 1937.

Type Locality.—Angel Island, San Francisco Bay, Marin County, Calif. *Range.*—Angel Island. Vertical range from near sea level to about 760 feet; zonal range, Upper Sonoran and weak Transition.

Scapanus latimanus caurinus F. G. Palmer*

1937. *Scapanus latimanus caurinus* F. G. Palmer, Journ. Mamm., vol. 18, No. 3, p. 290, Aug. 14, 1937.

Type Locality.—Laytonville, Mendocino County, Calif. *Range.*—Coastal region of California north of San Francisco Bay, except narrow strip extending north to Oregon line from Humboldt Bay, and west of Sacramento Valley except at its extreme northern end. Vertical range from near sea level (Bolinas, Marin County) to 5,500 feet (South Fork Mountain, Humboldt County); zonal range Upper Sonoran through Canadian.

Scapanus latimanus dilatus True†*

1894. *Scapanus dilatus* True, Diagnoses of new North American mammals, p. 2, Apr. 26, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 242, Nov. 15, 1894.)

1897. *Scapanus truei* Merriam†, Proc. Biol. Soc. Washington, vol. 11, p. 102, Apr. 26, 1897. (Lake City, Modoc County, Calif.)

1897. *Scapanus alpinus* Merriam†, Proc. Biol. Soc. Washington, vol. 11, p. 102, Apr. 26, 1897. (Crater Lake, Mount Mazama, Klamath County, Oreg. Altitude, 7,000 feet.)

1915. *Scapanus latimanus dilatus* Jackson, North Amer. Fauna No. 38, p. 72, Sept. 30, 1915.

Type Locality.—Fort Klamath, Klamath County, Oreg. Altitude, 4,200 feet. *Range.*—South-central Oregon, northeastern California east from western end of Siskiyou Mountains and western base of Sierra Nevada; extreme western border of Nevada to central Douglas County (Hall, Mammals of Nevada, p. 111, July 1, 1946). Vertical range from 600 feet (at Dale's on Paine's Creek, Tehama County) to 8,500 feet (at Lake Helen, Shasta County, Calif.); zonal range, Upper Sonoran to Hudsonian.

Scapanus latimanus minusculus Bangs*

1899. *Scapanus californicus minusculus* Bangs, Proc. New England Zool. Club, vol. 1, p. 70, July 31, 1899.

1912. *Scapanus latimanus minusculus* Grinnell and Swarth, Univ. California Publ. Zool., vol. 10, No. 3, p. 133, April 13, 1912.

Type Locality.—Fyffe, Eldorado County, Calif. Altitude, 3,500 feet. *Range.*—Known only from a very restricted range from Placerville, Eldorado County, east to type locality. Vertical range from 2,000 feet (as at Placerville) to 3,500 feet (as at type locality); zonal range, chiefly Transition.

Scapanus latimanus sericatus Jackson†*

1914. *Scapanus latimanus sericatus* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 55, Mar. 20, 1914.

Type Locality.—Yosemite, Yosemite Valley, Mariposa County, Calif. Altitude, 4,000 feet. *Range.*—Western slope of Sierra Nevada of California from Twain Harte Post Office, Tuolumne County, southwest to vicinity of Coulterville, Mariposa County (1,665 feet); east to Tuolumne Meadows, Tuolumne County; south in the Sierra to Shaver Ranger Station, Fresno County. Vertical range from 3,200 to 9,500 feet (in Lyell Canyon, Yosemite National Park, Tuolumne County. Grinnell and Storer, Animal life in the Yosemite, . . . , p. 43, Apr. 17, 1924); zonal range, Transition to Hudsonian.

Scapanus latimanus monoensis Grinnell*

1918. *Scapanus latimanus monoensis* Grinnell, Univ. California Publ. Zool., vol. 17, No. 14, p. 423, Apr. 25, 1918.

Type Locality.—Taylor Ranch, 2 miles south of Benton Station, Mono County, Calif. Altitude, 5,300 feet. *Range.*—East base of Sierra Nevada in Mono County from Farrington's Ranch, near Mono Lake, south to vicinity of Benton Station (see also A. B. Howell, Journ. Mamm., vol. 5, No. 1, p. 27, Feb. 9, 1924); and in Nevada along Walker River and its forks from near Wabuska southwestward (Hall, Mammals of Nevada, p. 111, July 1, 1946).

Scapanus latimanus grinnelli Jackson*

1914. *Scapanus latimanus grinnelli* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 56, Mar. 20, 1914.

Type Locality.—Site of old Fort Independence (on ranch of Carl Walters), two miles north of Independence, Inyo County, Calif. Altitude, 3,900 feet. *Range.*—Southern end of Sierra Nevada south probably from Olancha Peak, Inyo County, and in Owens Valley probably from Bishop, Inyo County, to Little Lake, Inyo County. Vertical range from 3,700 feet (at Lone Pine, Inyo County) to 6,700 feet (at Upper Funston Meadow, Kern River, Tulare County); zonal range, Lower Sonoran to high Transition.

Scapanus latimanus campi Grinnell and Storer

1916. *Scapanus latimanus campi* Grinnell and Storer, Univ. California Publ. Zool., vol. 17, No. 1, p. 1, Aug. 23, 1916.

Type Locality.—Snelling, Merced County, Calif. Altitude, 250 feet. *Range.*—East side of San Joaquin Valley and lower slopes of Sierran foothills from Snelling, Merced County, and El Portal, Mariposa County, southeast to Dunlap, Fresno County. Vertical range from 200 feet (Minkler, Fresno County) to 2,000 feet (Dunlap, Fresno County).

Scapanus latimanus occultus Grinnell and Swarth*

1912. *Scapanus latimanus occultus* Grinnell and Swarth, Univ. California Publ. Zool., vol. 10, No. 3, p. 131, Apr. 13, 1912.

Type Locality.—Santa Ana Canyon at 400 feet altitude, 12 miles northeast of Santa Ana, Orange County, Calif. *Range.*—Chiefly southern California. From near Porterville, Tulare County, and Kings River Canyon, Fresno County, south in Sierra Nevada west of Kern River drainage, and through Tehachapi Mountains (west at least to Santa Barbara), thence south, west of desert divides, to Mexican boundary, and in Baja California, México, probably in favorable places throughout Sierra Juarez. Vertical range, from near sea level (Ventura) to 9,800 feet (Twin Lakes, Sequoia National Park, Tulare County); zonal range, Lower Sonoran to Canadian.

Scapanus latimanus anthonyi J. A. Allen

1893. *Scapanus anthonyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 200, Aug. 18, 1893.

1937. *Scapanus latimanus anthonyi* F. G. Palmer, Journ. Mamm., vol. 18, No. 3, p. 312, Aug. 14, 1937.

Type Locality.—Sierra San Pedro Mártir, Baja California, México. Altitude, 7,000 feet. *Range.*—Known only from Sierra San Pedro Mártir, Baja California, from Vallecitos south to La Grulla. Vertical range from 7,000 feet (type locality) to 7,500 feet (at Vallecitos).

Genus PARASCALOPS[13] True

1894. *Parascalops* True, Diagnoses of new North American mammals, p. 2, Apr. 26, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 242, Nov. 15, 1894. Type, *Scalops breweri* Bachman.)

Parascalops breweri (Bachman)* (hairy-tailed mole)

1842. *Scalops breweri* Bachman, Boston Journ. Nat. Hist., vol. 4, p. 32.

1884. *Scapanus breweri* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, Nov. 29, 1884.

1895. *Paruscalops breweri* True, Science, new ser., vol. 1, p. 101, Jan. 25, 1895.

Type Locality.—Eastern North America; type supposed by Bachman to have been taken on the island of Martha's Vineyard, Mass., a locality where the animal probably does not occur. *Range.*—Southeastern Canada and northeastern United States from southern New Brunswick, southern Quebec, and eastern Ontario, south to southeastern and west-central Ohio (Olive, Journ. Mamm., vol. 31, No. 4, pp. 458–459, Nov. 21, 1950) and southern Pennsylvania, and in Appalachian Mountains to western North Carolina.

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[13] Revised by True, Proc. U. S. Nat. Mus., vol. 19, pp. 67–77, Dec. 21, 1896, and Jackson, North Amer. Fauna No. 38, pp. 77–82, Sept. 30, 1915.

Genus SCALOPUS[14] É. Geoffroy-Saint-Hilaire

1803. *Scalopus* É. Geoffroy-Saint-Hilaire, Catalogue des mammifères du Muséum National d'Histoire Naturelle, Paris, p. 77. (Type, *Sorex aquaticus* Linnaeus.)

Scalopus aquaticus aquaticus (Linnaeus) *

1758. [*Sorex*] *aquaticus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 53.

1829. *Sc*[*alops*] *aquaticus* Fischer, Synopsis Mammalium, p. 249.

1884. *Scalops aquaticus aquaticus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, 1884.

Type Locality.—Eastern United States (Philadelphia, Pa.; fixed by Jackson, North Amer. Fauna No. 38, p. 33, Sept. 30, 1915). *Range.*—Eastern United States from eastern and southern Massachusetts, southeastern New York, and southeastern Pennsylvania, northeastern West Virginia (Wilson, Journ. Mamm., vol. 25, No. 2, p. 202, May 26, 1944), south through Virginia, and in Appalachian Mountains south through western North Carolina and eastern Tennessee.

Scalopus aquaticus howelli Jackson† *

1914. *Scalopus aquaticus howelli* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 19, Feb. 2, 1914.

Type Locality.—Autaugaville, Autauga County, Ala. *Range.*—North Carolina (except in Appalachian Mountains), South Carolina, northern Georgia, thence southwest across central Alabama and southern Mississippi to Pensacola Bay and Mississippi River (southeastern Louisiana).

Scalopus aquaticus australis (Chapman) *

1893. *Scalops aquaticus australis* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 339, Dec. 22, 1893.

Type Locality.—Gainesville, Alachua County, Fla. *Range.*—Southeastern Georgia and eastern portion of Peninsular Florida south to Lemon City. Recorded also from Springhill Plantation, 10 miles south-southwest of Thomasville, Thomas County, Ga. (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 326, Dec. 5, 1952).

Scalopus aquaticus anastasae (Bangs) *

1898. *Scalops anastasae* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 212, Mar. 1898.

1915. *Scalopus aquaticus anastasae* Jackson, North Amer. Fauna No. 38, p. 39, Sept. 30, 1915.

Type Locality.—Point Romo, Anastasia Island, St. Johns County, Fla. *Range.*—Anastasia Island.

Scalopus aquaticus parvus (Rhoads) *

1894. *Scalops parvus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 157.

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[14] Revised by True, Proc. U. S. Nat. Mus., vol. 19, pp. 19–47, Dec. 21, 1896, and Jackson, North Amer. Fauna No. 38, pp. 27–54, Sept. 30, 1915.

1901. [*Scalops aquaticus*] *parvus* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 390, Mar. 6, 1901.

Type Locality.—Tarpon Springs, Pinellas County, Fla. *Range.*—Region north of Tampa Bay, in Hillsboro, Pasco, and Pinellas Counties, Fla.

Scalopus aquaticus bassi A. H. Howell*

1939. *Scalopus aquaticus bassi* A. H. Howell, Journ. Mamm., vol. 20, No. 3, p. 363, Aug. 14, 1939.

Type Locality.—Engelwood, Sarasota County, Fla. *Range.*—Known from type locality only.

Scalopus aquaticus porteri Schwartz

1952. *Scalopus aquaticus porteri* Schwartz, Journ. Mamm., vol. 33, No. 3, p. 381, Aug. 19, 1952.

Type Locality.—Uleta, Dade County, Fla. *Range.*—Known only from Uleta and Biscayne Gardens, Dade County, Fla., but probably occurs along east coast of Florida Peninsula south of Jupiter and Hypoluxo.

Scalopus aquaticus machrinus (Rafinesque)*

1832. *Talpa machrina* Rafinesque, Atlantic Journ., vol. 1, p. 61.

1884. *Scalops aquaticus argentatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 606, 1884.

1896. *Scalops aquaticus machrinus* True, Proc. U. S. Nat. Mus., vol. 19, p. 20, Dec. 21, 1896.

Type Locality.—Near Lexington, Fayette County, Ky. *Range.*—Eastern Iowa, and east of Mississippi River west of Appalachian Mountains from western Wisconsin, northern Illinois, southern Michigan, southwestern Ontario (Essex County), and northern Ohio (not present in northeastern Ohio, fide Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 87, Sept. 11, 1942), south to central Tennessee.

Scalopus aquaticus machrinoides Jackson†*

1914. *Scalopus aquaticus machrinoides* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 19, Feb. 2, 1914.

Type Locality.—Manhattan, Riley County, Kan. *Range.*—West of Mississippi River, except eastern Iowa, from central Minnesota, southeastern South Dakota, and eastern border of Nebraska, south through eastern Kansas to extreme northern Arkansas.

Scalopus aquaticus pulcher Jackson†*

1914. *Scalopus aquaticus pulcher* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 20, Feb. 2, 1914. (Regarded as identical with *aereus* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 325, Dec. 5, 1952.)

Type Locality.—Delight, Pike County, Ark. *Range.*—Humid lowland region of southern and eastern Arkansas, southeastern Oklahoma, Louisiana west of Mississippi River (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 217, Nov. 22, 1943), and eastern Texas (Denton County to Hardin County).

Scalopus aquaticus aereus (Bangs)

1896. *Scalops texanus aereus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 138, Dec. 28, 1896.

1901. [*Scalops*] *aereus* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 390, Mar. 6, 1901.

1952. *Scalopus aquaticus aereus* Hall and Kelson, Univ, Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 325, Dec. 5, 1952.

Type Locality.—Stilwell, Adair County, Okla. *Range.*—Known from type locality only.

Scalopus aquaticus caryi Jackson†*

1914. *Scalopus aquaticus caryi* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 20, Feb. 2, 1914.

Type Locality.—Neligh, Antelope County, Neb. *Range.*—Arid and semiarid plains region of central and western Nebraska, northeastern Colorado, and northwestern Kansas.

Scalopus aquaticus intermedius (Elliot)*

1899. *Scalops machrinus intermedius* Elliot, Field Columb. Mus. Publ. 37, Zool. Ser., vol. 1 (May 9), p. 280, May 15, 1899.

1901. [*Scalops aquaticus*] *intermedius* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 390, Mar. 6, 1901.

Type Locality.—Alva, Woods County, Okla. *Range.*—Central and western Oklahoma and adjacent parts of northern Texas; and in southwestern Kansas east to Sumner County and north to Stafford County (Cockrum Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 52, Aug. 25, 1952).

Scalopus aquaticus texanus (J. A. Allen)*

1891. *Scalops argentatus texanus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 221, Apr. 29, 1891.

1896. *Scalops aquaticus texanus* True, Proc. U. S. Nat. Mus., vol. 19, p. 21, Dec. 21, 1896.

Type Locality.—Presidio County, Tex. (See Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 2, p. 21, Feb. 28, 1951). *Range.*—Limits of range in trans-Pecos unknown.

Scalopus aquaticus alleni Baker*

1951. *Scalopus aquaticus alleni* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 2, p. 22, Feb. 28, 1951.

Type Locality.—Rockport, Aransas County, Tex. *Range.*—Southern Texas north to Bexar County and east to Refugio County.

Scalopus aquaticus cryptus Davis

1942. *Scalopus aquaticus cryptus* Davis, Amer. Midl. Nat., vol. 27, No. 2, p. 384, Mar. 1942.

Type Locality.—College Station, Brazos County, Tex.

Scalopus aquaticus nanus Davis

1942. *Scalopus aquaticus nanus* Davis, Amer. Midl. Nat., vol. 27, No. 2, p. 383, Mar. 1942.

Type Locality.—Thirteen miles east of Centerville, Leon County, Tex. *Range.*—Southeastern Texas.

Scalopus montanus Baker

1951. *Scalopus montanus* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol 5, No. 2, p. 19, Feb. 28, 1951.

Type Locality.—Club Sierra del Carmen, 2 miles north and 6 miles west of Piedra Blanca, Coahuila, México. *Range.*—Known only from type locality; probably found in other localities in Sierra del Carmen of northern Coahuila.

Scalopus inflatus Jackson†*

1914. *Scalopus inflatus* Jackson, Proc. Biol. Soc. Washington, vol. 27, p. 21, Feb. 2, 1914.

Type Locality.—Tamaulipas, México, 45 miles from Brownsville, Tex. *Range.*—Known from type locality only.

Subfamily CONDYLURINAE

Genus CONDYLURA[15] Illiger

1811. *Condylura* Illiger, Prodromus systematis Mammalium et Avium . . ., p. 125. (Type, *Sorex cristatus* Linnaeus.)

Condylura cristata cristata (Linnaeus)* (star-nosed mole)

1758. [*Sorex*] *cristatus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 53.

1819. *Condylura cristata* Desmarest, Journ. Phys. Chim. Hist. Nat. et Arts, Paris, vol. 89, p. 230.

1885. *Condylura cristata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1947. *Condylura cristata cristata* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 13, Jan. 24, 1947.

Type Locality.—Eastern Pennsylvania. *Range.*—Eastern and southern Canada from the Atlantic coast to Labrador to southwestern Manitoba; north to Hamilton Inlet (Labrador), East Main River (Quebec, east side of James Bay), south and west sides of James Bay (Ontario), and to Riding Mountain, Manitoba (Anderson, loc. cit.); south through New Brunswick along the Atlantic Coast to Virginia (Dismal Swamp) and Georgia (Marlow) and on the Appalachian Mountains to western North Carolina; and south through the Lake States to Illinois, Indiana, and Ohio.

Condylura cristata nigra R. W. Smith*

1940. *Condylura cristata nigra* R. W. Smith, Amer. Midl. Nat., vol. 24, No. 1, p. 218, July 31, 1940.

Type Locality.—Wolfville, Kings County, Nova Scotia, Canada. *Range.*—Nova Scotia.

Family NESOPHONTIDAE

Genus NESOPHONTES Anthony

1916. *Nesophontes* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 725, Nov. 16, 1916. (Type, *Nesophontes edithae* Anthony.)

Nesophontes edithae Anthony

1916. *Nesophontes edithae* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 725, Nov. 16, 1916.

Type Locality.—Cueva Catedral, near Morovis, Puerto Rico. (Known from skeletal remains only.)

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[15] Revised by True, Proc. U. S. Nat. Mus., vol. 19, pp. 77–98, Dec. 21, 1896, and Jackson, North Amer. Fauna No. 38, pp. 82–91, Sept. 30, 1915.

Nesophontes hypomicrus Miller†*

1929. *Nesophontes hypomicrus* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 4, Mar. 30, 1929.

Type Locality.—Cave near Atalaye plantation, about 4 miles east of St. Michel, Haiti. (Known from skeletal remains only.)

Nesophontes longirostris Anthony

1919. *Nesophontes longirostris* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 41, p. 633, Dec. 30, 1919.

Type Locality.—Cave near the beach at Daiquirí, Oriente, Cuba. (Known from skeletal remains only.)

Nesophontes micrus G. M. Allen*

1917. *Nesophontes micrus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 5, Jan. 1917.

Type Locality.—Sierra de Hato-Nuevo, Matanzas, Cuba. (Known from skeletal remains only.)

Nesophontes paramicrus Miller†*

1929. *Nesophontes paramicrus* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 3, Mar. 30, 1929.

Type Locality.—Cave near Atalaye plantation, about 4 miles east of St. Michel, Haiti. (Known from skeletal remains only.)

Nesophontes zamicrus Miller†*

1929. *Nesophontes zamicrus* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 7, Mar. 30, 1929.

Type Locality.—Cave near Atalaye plantation, about 4 miles east of St. Michel, Haiti. (Known from skeletal remains only.)

Order CHIROPTERA[16] (bats)

Suborder MICROCHIROPTERA

Superfamily EMBALLONUROIDEA

Family EMBALLONURIDAE

Subfamily EMBALLONURINAE (sac-winged bats)

Genus RHYNCHISCUS Miller

1907. *Rhynchiscus* Miller, Proc. Biol. Soc. Washington, vol. 20, p. 65, June 12, 1907. (Substitute for *Rhynchonycteris* Peters, 1867, not *Rhinchonycteris* Tschudi, 1844–46. Type, *Vespertilio naso* Wied-Neuwied.)

Rhynchiscus naso (Wied-Neuwied) *

1820. *Vespertilio naso* Wied-Neuwied, Reise nach Brasilien in den Jahren 1815–1817, vol. 1, p. 251, footnote.

1884. *Rhynchonycteris naso* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

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[16] Families and genera revised by Miller, U. S. Nat. Mus. Bull. No. 57, June 29, 1907.

1914. *Rhynchiscus naso priscus* G. M. Allen, Proc. Biol. Soc. Washington, vol. 27, p. 109, July 10, 1914. (Xcopen, Quintana Roo, México. Regarded as a synonym of *Rhynchiscus naso* by Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 325, Dec. 28, 1937.)

Type Locality.—Banks of Rio Mucuri, near Morro d'Arara, Minas Geraes, Brazil. *Range.*—From Southern México, south through Central America to northern Perú and central Brazil (Sanborn, loc. cit.).

Genus SACCOPTERYX Illiger

1811. *Saccopteryx* Illiger, Prodromus systematis Mammalium et Avium . . ., p. 121. (Type, *Vespertilio lepturus* Schreber.)

Saccopteryx bilineata (Temminck) *

1838–39. *Urocryptus bilineatus* Temminck, Tijdschr. natuurl. Gesch. Phys., vol. 5, p. 33.

1867. *Saccopteryx bilineata* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 471, [after July 29,] 1867.

1884. *Saccopteryx bilineata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1904. *Saccopteryx bilineata centralis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 251, April 1904. (Teapa, Tabasco, México. Regarded as a synonym of *Saccopteryx bilineata* by Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 328, Dec. 28, 1937.)

Type Locality.—Surinam; exact locality not known. *Range.*—From southern México (Colima, Guerrero, and Veracruz) south to central Bolivia and Mato Grosso and Rio de Janeiro, Brazil (Sanborn, op. cit., p. 330).

Saccopteryx leptura (Schreber) *

1774. *Vespertilio lepturus* Schreber, Die Säugthiere . . ., Theil 1, Heft 8, pl. 57 (Heft 9, p. 173, vernacular name only, and description).

1829. *Saccopteryx lepturus* Fischer, Synopsis Mammalium, p. 121.

Type Locality.—Surinam. *Range.*—Panamá south to southwestern Perú and northeastern Brazil (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 332, Dec. 28, 1937).

Genus CORMURA Peters

1867. *Cormura* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 475, [after July 29,] 1867. (Type, *Emballonura brevirostris* Wagner.)

Cormura brevirostris (Wagner) *

1843. *Emballonura brevirostris* Wagner, Arch. Naturg., Jahrg. 9, vol. 1, p. 367.

1867. *Cormura brevirostris* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 475, [after July 29,] 1867.

Type Locality.—Marabitanas, Rio Negro, Amazonas, Brazil. *Range.*—Nicaragua south through Colombia and Ecuador to Perú, and east through Venezuela and northern Brazil (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 348, Dec. 28, 1937).

Genus PEROPTERYX Peters

1867. *Peropteryx* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 472, [after July 29,] 1867. (Type, *Vespertilio caninus* Wied-Neuwied.)

Peropteryx macrotis macrotis (Wagner) *

1821. *Vesp[ertilio] caninus* Wied-Neuwied, *in* Schinz, Das Thierreich . . ., vol. 1, p. 179. (East coast of Brazil. Not *Vespertilio caninus* Blumenbach, 1797.)

1884. *Saccopteryx canina* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1843. *Emballonura macrotis* Wagner, Arch. Naturg., Jahrg. 9, vol. 1, p. 367.

1935. *Peropteryx macrotis macrotis* G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 277, Aug. 12, 1935.

Type Locality.—Mato Grosso, Brazil. *Range.*—From Río Chalchijapa, Veracruz (Dalquest and Hall, Journ. Mamm., vol. 30, No. 4, p. 424, Nov. 17, 1949), and Yucatán, México (Hatt, Journ. Mamm., vol. 19, No. 3, p. 334, Aug. 18, 1938; Hatt and Villa, Anal. Inst. Biol., Univ. Nac. Mexico, vol. 21, No. 1, p. 226, Sept. 28, 1950), Guatemala (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 339, Dec. 28, 1937) and British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 553 July 10, 1951), south to Mato Grosso, Brazil, west to Perú, and east to São Paulo, Brazil.

Peropteryx macrotis phaea G. M. Allen*

1911. *Peropteryx canina phœa* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 222, July 1911.

Type Locality.—Point Saline, Grenada, Lesser Antilles.

Peropteryx kappleri Peters*

1867. *Peropteryx kappleri* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 473, [after July 29,] 1867.

Type Locality.—Surinam. *Range.*—From Río Chalchijapa, Veracruz, México (Dalquest and Hall, Journ. Mamm., vol. 30, No. 4, p. 424, Nov. 17, 1949), south through Guatemala, Nicaragua and Panamá to Ecuador, and east through Venezuela to Dutch Guiana (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 343, Dec. 28, 1937).

Genus CENTRONYCTERIS Gray

1838. *Centronycteris* Gray, Mag. Zool. Bot., vol. 2, p. 499, February 1838. (Type, *Vespertilio calcaratus* Wied-Neuwied=V. *maximiliani* Fischer.)

Centronycteris maximiliani centralis Thomas

1912. *Centronycteris centralis* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 10, p. 638, December 1912.

1936. *Centronycteris maximiliani centralis* Sanborn, Field Mus. Nat. Hist. Publ. 361, Zool. Ser., vol. 20, p. 94, Aug. 15, 1936.

Type Locality.—Bogava [Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. *Range.*—Double Falls, British Honduras (Sanborn, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 372, Dec. 8, 1941) and Guatemala south to Ecuador and southern Brazil (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 337, Dec. 28, 1937).

Genus BALANTIOPTERYX Peters

1867. *Balantiopteryx* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 476, [after July 29,] 1867. (Type, *Balantiopteryx plicata* Peters.)

Balantiopteryx io Thomas*

1897. *Saccopteryx infusca* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 546, December 1897. (Part.)

1904. *Balantiopteryx io* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 252, April 1904.

Type Locality.—Río Dolores, near Cobán, Alta Verapaz, Guatemala. *Range.*—Recorded at Grutas Atoyac, Veracruz, México (Dalquest and Hall, Journ. Mamm., vol. 30, No. 4, p. 424, Nov. 17, 1949), and Alta Verapaz and Izabal, Guatemala (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 352, Dec. 28, 1937).

Balantiopteryx plicata plicata Peters*

1867. *Balantiopteryx plicata* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1867, p. 476, [after July 29,] 1867.

1884. *Saccopteryx plicata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1906. *Balantiopteryx plicata* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 235, July 25, 1906.

Type Locality.—Puntarenas, Puntarenas, Costa Rica. *Range.*—From Costa Rica (Sanborn, Field Mus. Nat. Hist. Publ. 399, Zool. Ser., vol. 20, p. 351, Dec. 28, 1937) northward to Veracruz, México (Davis, Journ. Mamm., vol. 25, No. 4, p. 376, Dec. 12, 1944).

Balantiopteryx plicata pallida Burt

1948. *Balantiopteryx plicata pallida* Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 515, p. 1, Oct. 30, 1948.

Type Locality.—San Bernardo, Río Mayo, Sonora, México. *Range.*—West coast of northern México from southern Sonora and Baja California to the southeast; southern limit of range unknown.

Balantiopteryx ochoterenai Martínez and Villa

1938. *Balantiopteryx ochoterenai* Martínez and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 9, Nos. 3–4, p. 339 (English text, p. 356), Nov. 14, 1938. (Characters cited applicable to *plicata* according to Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 2, May 27, 1941; Dalquest, Frum, and Hall, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 2, p. 432, Mar. 6, 1951; and Davis and Russell, Journ. Mamm., vol. 33, No. 2, p. 234, May 16, 1952).

Type Locality.—Cuautla, Morelos, México. *Range.*—Known from type locality only.

Subfamily DICLIDURINAE

Genus DICLIDURUS Wied-Neuwied

1820. *Diclidurus* Wied-Neuwied, Isis von Oken, 1819, p. 1629. (Type, *Diclidurus albus* Wied-Neuwied.)

Diclidurus virgo Thomas*

1884. *Diclidurus albus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1903. *Diclidurus virgo* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 377, April 1903.

Type Locality.—Escazú, San José, Costa Rica. *Range.*—Panamá north to Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist. vol. 79, p. 120, May 29, 1942).

Family NOCTILIONIDAE

Genus NOCTILIO Linnaeus

1766. *Noctilio* Linnaeus, Systema naturae, ed. 12, vol. 1, p. 88. (Type, *Noctilio americanus* Linnaeus=*Vespertilio leporinus* Linnaeus.)

1906. *Dirias* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906. (Type, *Noctilio albiventer* Spix. Regarded by Osgood, Field Mus. Nat. Hist. Publ. 149, Zool. Ser., vol. 10, pp. 31–32, Oct. 20, 1910, and by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 433, May 10, 1949, as identical with *Noctilio.*)

Noctilio leporinus mastivus (Vahl)*

1797. *Vespertilio mastivus* Vahl, Skrivter af Naturh.-Selsk. Kjøbenhavn, vol. 4, p. 132.

1884. *Noctilio leporinus mastivus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, 1884.

Type Locality.—St. Croix, Virgin Islands, West Indies. *Range.*—Grenada, Barbados, St. Vincent, Dominica, St. Kitts, and Montserrat (Recorded as *Noctilio leporinus leporinus* by Jones, Journ. Mamm., vol. 32, No. 2, p. 224, May 21, 1951).

Noctilio leporinus mexicanus Goldman†*

1915. *Noctilio leporinus mexicanus* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 136, June 29, 1915.

Type Locality.—Papayo, Guerrero, México. *Range.*—From southern México south to Panamá (Huey, Journ. Mamm., vol. 13, No. 2, p. 159, May 11, 1932).

Noctilio labialis minor Osgood*

1910. *Noctilio minor* Osgood, Field Mus. Nat. Hist. Publ. 149, Zool. Ser., vol. 10, p. 30, Oct. 20, 1910.

1912. *Dirias minor* Nelson, Proc. Biol. Soc. Washington, vol. 25, p. 93, May 4, 1912.

1949. *Noctilio labialis minor* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 433, May 10, 1949.

Type Locality.—Encontrados, south of Lake Maracaibo, Zulia, Venezuela. *Range.*—Venezuela, Colombia, Panamá, and north at least to Lake Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 121, May 29, 1942).

Superfamily PHYLLOSTOMATOIDEA

Family PHYLLOSTOMIDAE (American leaf-nosed bats)

Subfamily CHILONYCTERINAE

Genus CHILONYCTERIS[17] Gray

1839. *Chilonycteris* Gray, Ann. Nat. Hist., vol. 4, p. 4, September 1839. (Type, *Chilonycteris macleayii* Gray.)

Chilonycteris fuliginosa fuliginosa Gray*

1843. *Chilonycteris fuliginosus* Gray, Proc. Zool. Soc. London, 1843, pt. 11, p. 20, July 1843.

1904. *Chilonycteris macleayii fuliginosa* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 188, Mar. 26, 1904.

Type Locality.—Port au Prince, Haitian Republic. *Range.*—Haiti and Santo Domingo.

Chilonycteris fuliginosa inflata Rehn*

1904. *Chilonycteris macleayii inflata* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 190, Mar. 26, 1904.

1918. *Chilonycteris fuliginosa inflata* Anthony, Mem. Amer. Mus. Nat. Hist., new ser., vol. 2 (June), p. 344, Oct. 12, 1918.

Type Locality.—Cueva de Fari, near Pueblo Viejo, Puerto Rico. *Range.*—Puerto Rico.

Chilonycteris macleayii macleayii Gray*

1839. *Chilonycteris macleayii* Gray, Ann. Nat. Hist., vol. 4, p. 5, Sept. 1839.

1884. *Chilonycteris macleayi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

Type Locality.—Cuba. *Range.*—Cuba.

Chilonycteris macleayii grisea Gosse*

1851. *Chilonycteris grisea* Gosse, A Naturalist's sojourn in Jamaica, p. 326.

1904. *Chilonycteris macleayii grisea* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 191, Mar. 26, 1904.

Type Locality.—Phoenix Park, St. Ann Parish, Jamaica. *Range.*—Jamaica.

Chilonycteris torrei torrei G. M. Allen*

1916. *Chilonycteris torrei* G. M. Allen, Proc. New England Zool. Club, vol. 6, p. 4, Feb. 8, 1916.

1938. *Chilonycteris torrei torrei* Sanborn, Occ. Pap. Mus. Zool. Univ. Michigan No. 373, p. 1, May 26, 1938.

Type Locality.—La Cueva de la Majana, Baracoa, Oriente, Cuba. *Range.*—Cuba.

Chilonycteris torrei continentis Sanborn

1938. *Chilonycteris torrei continentis* Sanborn, Occ. Pap. Mus. Zool. Univ. Michigan No. 373, p. 1, May 26, 1938.

Type Locality.—Laguna de Zotz, Petén, Guatemala.

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[17] Revised by Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, 1904, pp. 181–207, Mar. 26, 1904.

Chilonycteris personata Wagner

1843. *Chilonycteris personata* Wagner, Wiegmann's Arch. Naturg. Jahrg. 9, vol. 1, p. 367.

1884. *Chilonycteris personata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—Mato Grosso [probably at St. Vincent; see Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 297, Dec. 31, 1946], Brazil. *Range.*—From Mato Grosso, Brazil, to Guatemala and to Tuxtla Mountains near San Andrés Tuxtla, Veracruz, México (Dalquest and Hall, Journ. Mamm., vol. 30, No. 4, p. 425, Nov. 17, 1949).

Chilonycteris parnellii parnellii (Gray) *

1843. *Phyllodia parnellii* Gray, Proc. Zool. Soc. London, 1843, pt. 11, p. 50, October 1843.

1878. *Chilonycteris parnellii* Dobson, Catalogue of the Chiroptera in the . . . British Museum, p. 452.

1884. *Chilonycteris parnelli* True, Proc, U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—Jamaica. *Range.*—Jamaica.

Chilonycteris parnellii boothi Gundlach*

1861. *Chilonycteris boothi* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1861, p. 154.

1904. *Chilonycteris parnellii boothi* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 197, Mar. 26, 1904.

Type Locality.—Fundador, Matanzas, Cuba. *Range.*—Cuba.

Chilonycteris parnellii portoricensis Miller†*

1902. *Chilonycteris portoricensis* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 400, Sept. 12, 1902.

1904. *Chilonycteris parnellii portoricensis* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 199, Mar. 26, 1904.

Type Locality.—Cueva de Fari, near Pueblo Viejo, Puerto Rico. *Range.*—Puerto Rico.

Chilonycteris parnellii pusillus G. M. Allen*

1917. *Chilonycteris parnellii pusillus* G. M. Allen, Proc. Biol. Soc. Washington, vol. 30, p. 168, Oct. 23, 1917.

Type Locality.—Arroyo Salado, Dominican Republic. *Range.*—Hispaniola.

Chilonycteris rubiginosa fusca J. A. Allen*

1884. *Chilonycteris rubiginosa* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1911. *Chilonycteris rubiginosa fusca* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 30, p. 262, Dec. 2, 1911.

Type Locality.—Las Quiguas, 5 miles south of Puerto Cabello, northern Venezuela. Altitude, 650 feet. *Range.*—Venezuela, Colombia, and Central America north into Guatemala (Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 434, May 10, 1949), and British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 554, July 10, 1951).

Chilonycteris rubiginosa mexicana Miller†*

1902. *Chilonycteris mexicana* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 401, Sept. 12, 1902.

1904. *Chilonycteris rubiginosa mexicana* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 203, Mar. 26, 1904.

Type Locality.—San Blas, Nayarit, México. *Range.*—Southern México, north to Guaymas, Sonora, on Pacific Coast (Burt, Mus. Zool. Univ. Michigan Misc. Publ. 39, p. 18, Feb. 15, 1938); also recorded from Carimechi, southwestern Chihuahua (Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 2, May 27, 1941), and Veracruz (G. M. Allen, Proc. New England Zool. Club, vol. 6, p. 6, Feb. 8, 1916).

Chilonycteris psilotis Dobson*

1878. *Chilonycteris psilotis* Dobson, Catalogue of the Chiroptera in the . . . British Museum, p. 451. (Regarded by J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 30, pp. 264–265, Dec. 2, 1911, as identical with *C. personata.*)

Type Locality.—Unknown. *Range.*—Recorded from Isthmus of Tehuantepec, México (Miller, Proc. Biol. Soc. Washington, vol. 15, p. 249, Dec. 16, 1902).

Genus PTERONOTUS[18] Gray

1838. *Pteronotus* Gray, Mag. Zool. Bot., vol. 2, p. 500, February 1838. (Type, *Pteronotus davyi* Gray.)

1901. *Dermonotus* Gill, Proc. Biol. Soc. Washington, vol. 14, p. 177, Sept. 25, 1901. (Same type.)

Pteronotus davyi davyi Gray*

1838. *Pteronotus davyi* Gray, Mag. Zool. Bot., vol. 2, p. 500, February 1838.

1884. *Chilonycteris davyi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1890. *Pteronotus davyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 178, Dec. 10, 1890.

Type Locality.—Island of Trinidad, British West Indies. *Range.*—From Brazil northward to island of Dominica, Lesser Antilles.

Pteronotus davyi fulvus (Thomas) *

1892. *Chilonycteris davyi fulvus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 10, p. 410, November 1892.

1912. *Pteronotus davyi fulvus* Miller, U. S. Nat. Mus. Bull. 79, p. 33, Dec. 31, 1912.

Type Locality.—Las Peñas, Jalisco, México. *Range.*—Southern México. Recorded also at Chichén-Itzá, Yucatán, México (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 554, July 10, 1951).

Pteronotus suapurensis suapurensis (J. A. Allen)

1904. *Dermonotus suapurensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 229, June 29, 1904.

1932. *Pteronotus suapurensis* Sanborn, Ann. Carnegie Mus., vol. 21, p. 173, Sept. 15, 1932.

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[18] Revised (under the name *Dermonotus*) by Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, pp. 250–256, Apr. 7, 1904.

Type Locality.—Suapuré, north of Rio Mato, Bolívar, Venezuela. *Range.*—Venezuela and Panamá north to Costa Rica (G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 227, Aug. 12, 1935. See also, Sanborn, loc. cit.).

Pteronotus suapurensis centralis Goodwin

1942. *Pteronotus suapurensis centralis* Goodwin, Journ. Mamm., vol. 23, No. 1, p. 88, Feb. 14, 1942.

Type Locality.—Matagalpa, Matagalpa, Nicaragua. Altitude, 3,000 feet. *Range.*—Known from type locality only.

Genus MORMOOPS[19] Leach

1821. *Mormoops* Leach, Trans. Linn. Soc. London, vol. 13, pt. 1, p. 76. (Type, *Mormoops blainvillii* Leach.)

1821. *Aëllo* Leach, Trans. Linn. Soc. London, vol. 13, pt. 1, p. 69. (Type, *Aëllo cuvieri* Leach. Probably from Jamaica or Cuba.)

Mormoops blainvillii blainvillii Leach*

1821. *Mormoops blainvillii* Leach, Trans. Linn. Soc. London, vol. 13, pt. 1, p. 77.

1884. *Mormops blainvillei* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—Jamaica. *Range.*—Jamaica.

Mormoops blainvillii cinnamomea (Gundlach)*

1840. *L[obostoma] cinnamomeum* Gundlach, Arch. Naturg., Jahrg. 6, vol. 1, p. 357.

1902. *Mormoops blainvillii cinnamomea* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 165, June 11, 1902.

Type Locality.—Cafetal San Antonio el Fundador, Matanzas, Cuba. *Range*—Cuba, Santo Domingo, and Mona Island, between Santo Domingo and Puerto Rico.

Mormoops megalophylla megalophylla Peters*

1864. *Mormops megalophylla* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 381.

1884. *Mormops megalophylla* True Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—Southern México. *Range.*—From Brownsville, Tex. (Davis, Texas Fish and Game, vol. 3, No. 2, p. 13, January 1945), Guaymas, Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 19, Feb. 15, 1938), southwestern Chihuahua (Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 2, May 27, 1941) and Yucatán south to Colombia, Ecuador and Venezuela.

Mormoops megalophylla senicula Rehn†*

1902. *Mormoops megalophylla senicula* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 169, June 11, 1902.

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[19] Revised by Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, pp. 160–172, June 11, 1902. According to Thomas (Ann. Mag. Nat. Hist., ser. 9, vol. 20, p. 598, December 1927) this genus should be known as *Aëllo* Leach, because of page priority.

Type Locality.—Fort Clark, Kinney County, Tex. *Range.*—Southern Texas (Mulaik, Journ. Mamm., vol. 24, No. 2, p. 269, June 7, 1943), northern and central México.

Subfamily PHYLLOSTOMINAE

Genus MICRONYCTERIS[20] Gray

1866. *Micronycteris* Gray, Proc. Zool. Soc. London, 1866, pt. 1, p. 113, May 1866. (Type, *Phyllophora megalotis* Gray.)

Subgenus MICRONYCTERIS Gray

Micronycteris megalotis mexicana Miller†*

1884. *Schizostoma megalotis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1898. *Micronycteris megalotis mexicanus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 329, Aug. 2, 1898.

Type Locality.—Plantanar, Jalisco, México. *Range.*—Southern México and Central America (Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus., Publ. 625, vol. 31, p. 219, Apr. 29, 1949). Recorded also at Tekom and Chichén-Itzá, Yucatán, México (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 554, July 10, 1951).

Micronycteris megalotis microtis Miller†*

1898. *Micronycteris microtis* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 328, July 12, 1898. (For status, see Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, pp. 372–373, November 1906.)

1949. *Micronycteris* (*Micronycteris*) *megalotis microtis* Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 219, Apr. 29, 1949.

Type Locality.—Greytown [=San Juan del Norte], Comarca de San Juan del Norte, Nicaragua. *Range.*—Nicaragua, Costa Rica, and Panamá (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 301, Dec. 31, 1946).

Micronycteris schmidtorum Sanborn

1935. *Micronycteris schmidtorum* Sanborn, Field Mus. Nat. Hist. Publ. 340, Zool. Ser., vol. 20, p. 81, May 15, 1935.

Type Locality.—Bobos, Izabal, Guatemala. *Range.*—Also recorded from Copán, Honduras (Sanborn, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 372, Dec. 8, 1941) and Oxkintok (El Laberinto) and Opichen in Yucatán, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 227, Sept. 28, 1950).

Subgenus XENOCTENES[21] Miller

1907. *Xenoctenes* Miller, U. S. Nat. Mus. Bull. 57, p. 124, June 29, 1907. (Type, *Schizostoma hirsutum* Peters.)

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[20] Revised by Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, pp. 50–58, July 1906; and Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, pp. 215–233, Apr. 29, 1949.

[21] Regarded as a subgenus of *Micronycteris* by Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 220, Apr. 29, 1949.

Micronycteris hirsuta (Peters)

1869. *Schizostoma hirsutum* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1869, p. 396.

1884. *Schizostoma hirsutus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1906. *Micronycteris hirsuta* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 57, July 1906.

1907. *Xenoctenes hirsutus* Miller, U. S. Nat. Mus. Bull. 57, p. 125, June 29, 1907.

1949. *Micronycteris* (*Xenoctenes*) *hirsuta* Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 223, Apr. 29, 1949.

Type Locality.—Unknown (tentatively designated as Pozo Azul, San José, Costa Rica, by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 302, Dec. 31, 1946). *Range.*—Costa Rica (Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 2, p. 318, Oct. 1898) to Colombia (Sanborn, Ann. Carnegie Mus., vol. 21, p. 173, Sept. 15, 1932), and Trinidad.

Subgenus LAMPRONYCTERIS Sanborn

1949. *Lampronycteris* Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 223, Apr. 29, 1949. (Type, *Micronycteris* (*Lampronycteris*) *platyceps* Sanborn.)

Micronycteris platyceps Sanborn

1949. *Micronycteris* (*Lampronycteris*) *platyceps* Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 224, Apr. 29, 1949.

Type Locality.—Guanapo, Trinidad, British West Indies. *Range.*—Recorded from Trinidad, Venezuela, and possibly Volcán de Chinandega, Nicaragua.

Subgenus GLYPHONYCTERIS [22] Thomas

1896. *Glyphonycteris* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 18, p. 302, October 1896. (Type, *Glyphonycteris sylvestris* Thomas.)

Micronycteris sylvestris (Thomas) *

1896. *Glyphonycteris sylvestris* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 18, p. 303, October 1896.

1949. *Micronycteris* (*Glyphonycteris*) *sylvestris* Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 231, Apr. 29, 1949.

Type Locality.—Between 1,400 and 2,000 feet altitude near Hacienda Miravalles, Volcán de Miravalles, Guanacaste, Costa Rica (see Underwood, Ibis, ser. 7, vol. 2, p. 432, October 1896). *Range.*—Nicaragua and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 302, Dec. 31, 1946) north to 15 kilometers east-northeast of Tlacotepec, Veracruz, México (Dalquest and Hall, Journ. Mamm., vol. 30, No. 4, p. 427, Nov. 17, 1949).

Genus MACROTUS [23] Gray

1843. *Macrotus* Gray, Proc. Zool. Soc. London, 1843, pt. 11, p. 21, July 1843. (Type, *Macrotus waterhousii* Gray.)

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[22] Regarded as a subgenus of *Micronycteris* by Sanborn, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 625, vol. 31, p. 231, Apr. 29, 1949.

[23] Revised by Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, pp. 427–446, June 27, 30, 1904.

1891. *Otopterus* Lydekker, *in* Flower and Lydekker, An introduction to . . . mammals living and extinct, p. 673. (Same type; proposed because of the name *Macrotis* Reid, applied to an Australian marsupial in 1837.)

Macrotus waterhousii waterhousii Gray*

1843. *Macrotus waterhousii* Gray, Proc. Zool. Soc. London, 1843, pt. 11, p. 21, July 1843.

1884. *Macrotus waterhousei* True, U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884. (Part.)

Type Locality.—Haiti. *Range.*—Haiti and Santo Domingo.

Macrotus waterhousii jamaicensis Rehn†*

1904. *Macrotus waterhousii jamaicensis* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 432, June 27, 1904.

Type Locality.—Spanishtown, Jamaica. *Range.*—Jamaica.

Macrotus waterhousii compressus Rehn†*

1904. *Macrotus waterhousii compressus* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 434, June 30, 1904.

Type Locality.—Eleuthera, Bahamas. *Range.*—Bahama Islands.

Macrotus waterhousii heberfolium Shamel†*

1931. *Macrotus waterhousii heberfolium* Shamel, Journ. Washington Acad. Sci., vol. 21, p. 252, June 4, 1931.

Type Locality.—Kingston, Providenciales Island, Bahamas. *Range.*—Known from type locality only.

Macrotus waterhousii minor Gundlach*

1864. *Macrotus minor* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 382.

1904. *Macrotus waterhousii minor* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 435, June 30, 1904.

Type Locality.—Western Cuba. *Range.*—Cuba and Isle of Pines.

Macrotus mexicanus mexicanus Saussure*

1860. *Macrotus mexicanus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 486, November 1860.

1884. *Macrotus bocourtianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1904. *Macrotus mexicanus* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 437, June 30, 1904.

Type Locality.—Yautepec, near Cuautla, Morelos, México. *Range.*—From Colima, Michoacán, and Morelos, México, south to Vera Paz, Guatemala.

Macrotus mexicanus bulleri H. Allen*

1890. *Macrotus bulleri* H. Allen, Proc. Amer. Philos. Soc., vol. 28, p. 73, May 10, 1890.

1904. *Macrotus mexicanus bulleri* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 439, June 30, 1904.

Type Locality.—Bolaños, Jalisco, México. *Range.*—From Guadalajara north to Durango and central Chihuahua, also including Tres Marías Islands.

Macrotus californicus Baird*

1858. *Macrotus californicus* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 10, p. 116.

Type Locality.—Old Fort Yuma, Imperial County, Calif., on right bank of Colorado River, opposite present town of Yuma, Ariz. *Range.*—Arid region of southwestern United States from southern Nevada (Hall, Mammals of Nevada, p. 129, July 1, 1946), Arizona (G. M. Allen, Journ. Mamm., vol. 3, No. 3, p. 156, Aug. 4, 1922), Imperial and Riverside Counties, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, p. 85, Sept. 26, 1933), south through Baja California and Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 19, Feb. 15, 1938).

Macrotus pygmaeus Rehn

1904. *Macrotus pygmaeus* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 444, June 30, 1904.

Type Locality.—Izamal, Yucatán, México.

Genus LONCHORHINA Tomes

1863. *Lonchorhina* Tomes, Proc. Zool. Soc. London, 1863, pt. 1, p. 81, May 1863. (Type, *Lonchorhina aurita* Tomes.)

Lonchorhina aurita Tomes*

1863. *Lonchorhina aurita* Tomes, Proc. Zool. Soc. London, 1863, pt. 1, p. 83, May 1863.

1884. *Lonchorhina aurita* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—"West Indies." *Range.*—Venezuela, Trinidad, Bahama Islands, Panamá (Sanborn, Ann. Carnegie Mus., vol. 21, p. 174, Sept. 15, 1932), and north to Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 125, May 29, 1942).

Genus MACROPHYLLUM Gray

1838. *Macrophyllum* Gray, Mag. Zool. Bot., vol. 2, p. 489, February 1838. (Type, *Macrophyllum nieuwiedii* Gray=*Phyllostoma macrophyllum* Schinz.)

1891. *Dolichophyllum,* Lydekker, *in* Flower and Lydekker, An introduction to . . . mammals living and extinct, p. 673. (Same type.)

Macrophyllum macrophyllum (Schinz)*

1821. *Phyllost* [*oma*] *macrophyllum* Schinz, Das Thierreich . . . , vol. 1, p. 163.

1826. *Ph*[*yllostoma*] *macrophyllum* Wied-Neuwied, Beiträge zur Naturgeschichte von Brasilien, vol. 2, p. 188.

1912. *Macrophyllum macrophyllum* Nelson, Proc. Biol. Soc. Washington, vol. 25, p. 93, May 4, 1912.

Type Locality.—Rio Mucurí, Minas Geraes, Brazil. *Range.*—Minas Geraes, Brazil, north to the city of Panamá, Panamá.

Genus TONATIA[24] Gray

1827. *Tonatia* Gray, *in* Griffith, The animal kingdom . . . by the Baron Cuvier . . . , vol. 5, p. 71. (Type, *Vampyrus bidens* Spix.)

Tonatia amblyotis (Wagner) *

1843. *Phyllostoma amblyotis* Wagner, Arch. Naturg., Jahrg. 9, vol. 1, p. 365.

1902. *Tonatia amblyotis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 10, p. 54, July, 1902.

Type Locality.—Mato Grosso, Brazil. *Range.*—From Mato Grosso, Brazil, north on west coast (Perú, Ecuador, Colombia) to Panamá and north in Central America to British Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 305, Dec. 31, 1946).

Tonatia bidens (Spix)

1823. *Vampyrus bidens* Spix, Simiarum et vespertilionum Brasiliensium . . . p. 65.

1840. [*Tonatia*] *bidens* Gray, *in* Griffith, The animal kingdom . . . by the Baron Cuvier . . . , vol. 5, p. 69 (See Palmer, Proc. Biol. Soc. Washington, vol. 5, p. 111, Apr. 30, 1898.)

Type Locality.—Bank of Rio São Francisco, Bahia, Brazil. *Range.*—From Bahia, Brazil, west to Perú and north, east of Andes, to the Guianas, Venezuela, and north in Central America to Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 304, Dec. 31, 1946).

Tonatia nicaraguae Goodwin

1942. *Tonatia nicaraguac* Goodwin, Journ. Mamm., vol. 23, No. 2, p. 205, May 14, 1942.

Type Locality.—Kanawa Creek, near Cukra, north of Bluefields, Zelaya, Nicaragua. Altitude, 100 feet. *Range.*—Known from type locality only.

Genus MIMON Gray

1847. *Mimon* Gray, Proc. Zool. Soc. London, 1847, pt. 15, p. 14, Apr. 13, 1847. (Type *Phyllostoma bennettii* Gray.)

Mimon bennettii (Gray) *

1838. *Phyllostoma bennettii* Gray, Mag. Zool. Bot., vol. 2, p. 488, February 1838.

1847. *M*[*imon*] *bennettii* Gray, Proc. Zool. Soc. London, 1847, pt. 15, p. 14, Apr. 13, 1847.

1884. *Mimon bennettii* True, Proc. U. S. Nat. Mus., vol. 7 (App. Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—South America (restricted to Ypanema, São Paulo, Brazil, by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 555, July 10, 1951). *Range.*—Santa Catarina and São Paulo, Brazil, north to Yucatán (Sanborn, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 373, Dec. 8, 1941) and southern México.

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[24] For a recent "summary of recognizable species of *Tonatia*" see Goodwin, Journ. Mamm., vol. 23, no. 2, pp. 204–209, May 14, 1942.

Mimon cozumelae Goldman†*

1914. *Mimon cozumelae* Goldman, Proc. Biol. Soc. Washington, vol. 27, p. 75, May 11, 1914.

Type Locality.—Cozumel Island, Quintana Roo, México. *Range.*—Cozumel Island and Calcehtok and Actun Tuz-íc in Yucatán, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 227, Sept. 28, 1950).

Genus PHYLLOSTOMUS Lacépède

1799. *Phyllostomus* Lacépède, Tableau des divisions, sous-divisions, ordres et genres des mammifères, p. 16 (Published as supplement to Discours d'ouverture et de clôture du cours d'histoire naturelle . . .). (Type, *Vespertilio hastatus* Pallas.)

Phyllostomus discolor discolor Wagner*

1843. *Phyllostoma discolor* Wagner, Arch. Naturg., Jahrg. 9, vol. 1, p. 366.

1932. *Phyllostomus discolor* Miller, Proc. Biol. Soc. Washington, vol. 45, p, 149, Sept. 9, 1932.

Type Locality.—Cuyaba, Mato Grosso, Brazil. *Range.*—Mato Grosso, Piaui, and Amazonas, Brazil, west to Perú, and north to Guianas; and to Barro Colorado Island, Canal Zone, Panamá (Miller, loc. cit.).

Phyllostomus discolor verrucosus (Elliot)*

1905. *Phyllostoma verrucossum* [sic] Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 236, Dec. 9, 1905.

1912. *Phyllostomus verrucosus* Miller, U. S. Nat. Mus. Bull. 79, p. 38, Dec. 31, 1912.

1936. *Phyllostomus discolor verrucosus* Sanborn, Field Mus. Nat. Hist. Publ. 361, Zool. Ser., vol. 20, No. 13, p. 97, Aug. 15, 1936.

Type Locality.—Niltepec, Oaxaca, México. *Range.*—Recorded also at Orizaba, Veracruz, México, and at Patulul, Solola, and Escobas, Izabal, Guatemala (Sanborn, loc. cit.).

Phyllostomus hastatus panamensis J. A. Allen*

1884. *Phyllostoma hastatum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1904. *Phyllostomus hastatus panamensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 233, June 29, 1904.

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—Panamá north to Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 125, May 29, 1942).

Genus PHYLLODERMA Peters

1865. *Phylloderma* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 513. (Type, *Phyllostoma stenops* Peters.)

Phylloderma septentrionalis Goodwin

1940. *Phylloderma septentrionalis* Goodwin, Amer. Mus. Nov. No. 1075, p. 1, June 27, 1940.

Type Locality.—Las Pilas, six miles north of Marcala, La Paz, Honduras. Altitude about 4,000 feet. *Range.*—Known from Honduras only.

Genus TRACHOPS Gray

1847. *Trachops* Gray, Proc. Zool. Soc. London, 1847, pt. 15, p. 14, Apr. 13, 1847. (Type, *Trachops fuliginosus* Gray=*Vampyrus cirrhosus* Spix.)

Trachops cirrhosus (Spix) *

1823. *Vampyrus cirrhosus* Spix, Simiarum et vespertilionum Brasiliensium . . ., p. 64.

1878. *Trachyops cirrhosus* Dobson, Catalogue of the Chiroptera in the . . . British Museum, p. 481.

1884. *Trachops cirrhosus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—Brazil. *Range.*—Minas Geraes, Brazil, north to Panamá (G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 227, Aug. 12, 1935).

Trachops coffini Goldman†*

1925. *Trachops coffini* Goldman, Proc. Biol. Soc. Washington, vol. 38, p. 23, Mar. 12, 1925.

Type Locality.—Guyo, Petén, Guatemala. *Range.*—Guatemala and Honduras; limits of range unknown (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 127, May 29, 1942). Recorded also at Belize, British Honduras (Hershkovitz, Fieldiana-Zool. Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 555, July 10, 1951).

Genus CHROTOPTERUS Peters

1865. *Chrotopterus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 505. (Type, *Vampyrus auritus* Peters.)

Chrotopterus auritus auritus (Peters) *

1856. *Vampyrus auritus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1856, p. 415.

1865. *Chrotopterus auritus* Peters, Monatsb. Preuss, Akad. Wiss. Berlin, 1865, p. 505.

1884. *Vampyrus spectrum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1900. *Chrotopterus auritus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 91, May 12, 1900.

Type Locality.—México. *Range.*—Tropical America north to southern México (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 128, May 29, 1942).

Genus VAMPYRUM Rafinesque

1815. *Vampyrum* Rafinesque, Analyse de la nature, p. 54. (Type, *Vespertilio spectrum* Linnaeus. For use of this name in place of *Vampyrus* Leach, Trans. Linn. Soc. London, vol. 13, p. 79, 1822, and for selection of type, see Andersen, Ann. Mag. Nat. Hist., ser. 8, vol. 1, p. 433, May 1908.)

Vampyrum spectrum nelsoni (Goldman)†*

1884. *Vampyrus spectrum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1917. *Vampyrus spectrum nelsoni* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 115, May 23, 1917.

Type Locality.—Coatzacoalcos, Veracruz, México. *Range.*—Panamá north to Southern México (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 310, Dec. 31, 1946).

Subfamily GLOSSOPHAGINAE (long-tongued bats)

Genus GLOSSOPHAGA [25] É. Geoffroy-Saint-Hilaire

1818. *Glossophaga* É. Geoffroy-Saint-Hilaire, Mem. Mus. Hist. Nat., Paris, vol. 4, p. 418. (Type, *Vespertilio soricinus* Pallas.)

soricina—group

Glossophaga soricina leachii (Gray) *

1843. *Monophyllus leachii* Gray, *in* The zoology of the voyage of H.M.S. *Sulphur*, under the command of Capt. Sir E. Belcher, vol. 1, No. 1, Mammalia, pt. 1, p. 18, April 1843.

1884. *Glossophaga soricina* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1913. *Glossophaga soricina leachii* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 419, Dec. 31, 1913.

Type Locality.—Realejo, Chinandega, Nicaragua. *Range.*—From Panamá north to Durango and Tamaulipas in central México; also recorded from San Bernardo, southeastern Sonora (Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 2, May 27, 1941), Río Xolapa, Guerrero (Davis, Journ. Mamm. vol. 25, No. 4, p. 377 (Dec. 12, 1944), Calcehtok, Actun Spukil, and Oxkintok (El Laberinto), Yucatán and Santa Rosa, Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 229, Sept. 28, 1950), and Cuetzala, Tekom, and Chichén-Itzá, Yucatán (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. publ. 670, vol. 31, p. 555, July 10, 1951).

Glossophaga soricina alticola Davis

1944. *Glossophaga socicina alticola* Davis, Journ. Mamm., vol. 25, No. 4 (November), p. 377, Dec. 12, 1944.

Type Locality.—Thirteen kilometers northeast of Tlaxcala, Tlaxcala, México. Altitude, 7,800 feet. *Range.*—Known from type locality.

Glossophaga soricina mutica Merriam†*

1898. *Glossophaga mutica* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 18, Jan. 27, 1898.

1913. *Glossophaga soricina mutica* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 420, Dec. 31, 1913.

Type Locality.—María Madre Island, Tres Marías Islands, Nayarit, México. *Range.*—Tres Marías Islands.

Glossophaga soricina antillarum Rehn*

1902. *Glossophaga soricina antillarum* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 37, Apr. 23, 1902.

Type Locality.—Port Antonio, Jamaica. *Range.*—Jamaica.

Glossophaga morenoi Martínez and Villa

1938. *Glossophaga morenoi* Martínez and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 9, Nos. 3–4, p. 347 (English text, p. 357), Nov. 14, 1938.

Type Locality.—Xiutepec, Morelos, México.

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[25] Revised by Miller, Proc. U. S. Nat. Mus., vol. 46, pp. 413–429, Dec. 31, 1913.

longirostris—group

Glossophaga longirostris rostrata Miller†*

1908. *Glossophaga longirostris* G. M. Allen, Bull. Mus. Comp. Zool., vol. 52, p. 35, July 1908. (Not of Miller, 1898.)

1913. *Glossophaga rostrata* Miller, Proc. Biol. Soc. Washington, vol. 26, p. 32, Feb. 8, 1913.

1913. *Glossophaga longirostris rostrata* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 423, Dec. 31, 1913.

Type Locality.—Westerhall estate, Grenada, Lesser Antilles. *Range.*—Grenada and Grenadines (Union and Carriacou), Lesser Antilles; Dominica? [26]

Genus LONCHOPHYLLA Thomas

1903. *Lonchophylla* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 12, p. 458, October 1903. (Type, *Lonchophylla mordax* Thomas.)

Lonchophylla concava Goldman†*

1914. *Lonchopyhlla concava* Goldman, Smithsonian Misc. Coll., vol. 63, No. 5, p. 2, Mar. 14, 1914.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Known from type locality only.

Lonchophylla robusta Miller†*

1912. *Lonchophylla robusta* Miller, Proc. U. S. Nat. Mus., vol. 42, p. 23, Mar. 6, 1912.

Type Locality.—Cave on Chilibrillo River, near Alhajuela, Panamá. *Range.*—Panamá.

Genus MONOPHYLLUS [27] Leach

1821. *Monophyllus* Leach, Trans. Linn. Soc. London, vol. 13, p. 75. (Type, *Monophyllus redmani* Leach.)

Monophyllus redmani Leach*

1821. *Monophyllus redmani* Leach, Trans. Linn. Soc. London, vol. 13, p. 76.

1885. *Monophyllus redmani* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

Type Locality.—Jamaica. *Range.*—Jamaica.

Monophyllus cubanus cubanus Miller†*

1902. *Monophyllus cubanus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 410, Sept. 12, 1902.

Type Locality.—Baracoa, Oriente, eastern Cuba. *Range.*—Cuba.

Monophyllus cubanus ferreus Miller†*

1918. *Monophyllus cubanus ferreus* Miller, Proc. Biol. Soc. Washington, vol. 31, p. 40, May 16, 1918.

Type Locality.—Cave 8 miles west-southwest of Jérémie, southwestern Haitian Republic.

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[26] Two specimens; one too young, the other too mutilated, for exact determination.

[27] Revised by Miller, Proc. Washington Acad. Sci., vol. 2, pp. 31–38, Mar. 30, 1900.

Monophyllus portoricensis Miller†*

1900. *Monophyllus portoricensis* Miller, Proc. Washington Acad. Sci., vol. 2, p. 34, Mar. 30, 1900.

Type Locality.—Cave near Bayamón, Puerto Rico. *Range.*—Puerto Rico.

Monophyllus plethodon Miller†*

1900. *Monophyllus plethodon* Miller, Proc. Washington Acad. Sci., vol. 2, p. 35, Mar. 30, 1900.

Type Locality.—St. Michael Parish, Barbados, Lesser Antilles. *Range.*—Barbados.

Monophyllus luciae Miller†*

1902. *Monophyllus luciae* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 411, Sept. 12, 1902.

Type Locality.—St. Lucia, Lesser Antilles. *Range.*—St. Lucia.

Monophyllus frater Anthony

1917. *Monophyllus frater* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 565, Sept. 7, 1917.

Type Locality.—Cave near Morovis, Puerto Rico. *Range.*—Known from skeletal remains only.

Monophyllus clinedaphus Miller†*

1900. *Monophyllus clinedaphus* Miller, Proc. Washington Acad. Sci., vol. 2, p. 36, Mar. 30, 1900.

Type Locality.—Unknown. *Range.*—Unknown.

Genus ANOURA[28] Gray

1838. *Anoura* Gray, Mag. Zool. Bot., vol. 2, p. 490, February 1838. (Type *Anoura geoffroyi* Gray.)

Anoura geoffroyi lasiopyga (Peters) *

1868. *Glossonycteris lasiopyga* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1868, p. 365.

1884. *Glossonycteris lasiopyga* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1933. *Anoura geoffroyi lasiopyga* Sanborn, Field Mus. Nat. Hist. Publ. 323, Zool. Ser., vol. 20, p. 27, Dec. 11, 1933.

Type Locality.—Southern México. *Range.*—Southern México, Guatemala, and El Salvador.

Genus CHOERONYCTERIS Tschudi

1844. *Choeronycteris* Tschudi, Untersuchungen über die Fauna Peruana . . . , p. 70. (Type, *Choeronycteris mexicana* Tschudi.)

Choeronycteris mexicana Tschudi*

1844. *Choeronycteris mexicana* Tschudi, Untersuchungen über die Fauna Peruana . . . , p. 72.

1884. *Choeronycteris mexicana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

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[28] Revised by Sanborn, Field Mus. Nat. Hist. Publ. 323, Zool. Ser., vol. 20, pp. 23–27, Dec. 11, 1933.

Type Locality.—México. *Range.*—From San Diego, Calif. (Olson, Journ. Mamm., vol. 28, No. 2, p. 183, May 19, 1947), Huachuca Mountains (Campbell, Journ. Mamm., vol. 15, No. 3, p. 241, Aug. 10 1934) and Chiricahua Mountains (Cahalane, Journ. Mamm., vol. 20, No. 4, p. 421, Nov. 14, 1939) in southeastern Arizona, south to Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 10, Dec. 12, 1934).

Genus CHOERONISCUS Thomas

1928. *Choeroniscus* Thomas, Ann. Mag. Nat. Hist., ser. 10, vol. 1, p. 122, January 1928. (Type *Choeronycteris minor* Peters.)

Choeroniscus godmani (Thomas)

1884. *Choeronycteris minor* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884. (Not of Peters, 1868.)

1903. *Choeronycteris godmani* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 288, March 1903.

1928. [*Choeroniscus*] *godmani* Thomas, Ann. Mag. Nat. Hist., ser. 10, vol. 1, p. 122, January 1928.

Type Locality.—Guatemala. *Range.*—Known from Guatemala, Honduras, and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 129, May 29, 1942); also recorded from Pijipiapan, Chiapas, México (Hooper, Journ. Mamm., vol. 28, No. 1, p. 43, Feb. 15, 1947).

Genus HYLONYCTERIS Thomas

1903. *Hylonycteris* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 286, March 1903. (Type, *Hylonycteris underwoodi* Thomas.)

Hylonycteris underwoodi Thomas

1903. *Hylonycteris underwoodi* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 286, March 1903.

Type Locality.—Rancho Redondo, San José, Costa Rica. *Range.*—Costa Rica north to Veracruz, México (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 130, May 29, 1942).

Genus LEPTONYCTERIS Lydekker

1891. *Leptonycteris* Lydekker, *in* Flower and Lydekker, An introduction to . . . mammals living and extinct, p. 674. (Type, *Ischnoglossa nivalis* Saussure.)

Leptonycteris nivalis nivalis (Saussure) *

1860. *M*[=*Ischnoglossa*] *nivalis* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 492, November 1860.

1884. *Ischnoglossa nivalis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1900. *Leptonycteris nivalis* Miller, Proc. Biol. Soc. Washington, vol. 13, p. 126, Apr. 6, 1900.

Type Locality.—Near snow line on Mount Orizaba, Veracruz, México. *Range.*—From Dueñas, Guatemala (Goodwin, Bull., Amer. Mus. Nat. Hist., vol. 79, p. 130, May 29, 1942) north to Carimechi in southwestern Chihuahua (Burt and Hooper, Occ. Papers Mus. Zool. Univ. Michigan No. 430, p. 2, May 27, 1941), mountainous region of eastern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 21, Feb. 15, 1938), Santa Cruz County in southeastern Arizona

(Campbell, Journ. Mamm., vol. 15, No. 3, p. 241, Aug. 10, 1934) and Brewster County in southwestern Texas (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 7, Aug. 7, 1942).

Leptonycteris nivalis yerbabuenae Martínez and Villa

1940. *Leptonycteris nivalis yerbabuenae* Martínez and Villa, Ann. Inst. Biol. Univ. Nac. México, vol. 11, No. 1, p. 313, August 1940.

Type Locality.—Yerba Buena, Guerrero, México. *Range.*—Known from type locality only.

Genus LICHONYCTERIS Thomas

1895. *Lichonycteris* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 16, p. 55, July 1895. (Type, *Lichonycteris obscura* Thomas).

Lichonycteris obscura Thomas*

1895. *Lichonycteris obscura* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 16, p. 56, July 1895.

Type Locality.—Managua, Managua, Nicaragua. *Range.*—Dutch Guiana, Costa Rica and Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 130, May 29, 1942).

Subfamily CAROLLIINAE [29]

Genus CAROLLIA Gray

1838. *Carollia* Gray, Mag. Zool. Bot., vol. 2, p. 488, February 1838. (Type, *Carollia braziliensis* Gray=*Vespertilio perspicillatus* Linnaeus.)

Remarks.—Since 1891 often called *Hemiderma* (Lydekker *in* Flower and Lydekker, An introduction to . . . mammals living and extinct, p. 674); but *Carollia* Gray, 1838, is not invalidated by *Carolia* Cantraine according to the International Code of Zoological Nomenclature, art. 36, with accompanying recommendation, and Opinion 25 of the International Commission of Zoological Nomenclature (Smithsonian Inst. Spec. Publ. 1933, pp. 59–61, July 1910).

Carollia perspicillata perspicillata (Linnaeus)*

1758. *Vespertilio perspicillatus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 31.

1884. *Carollia brevicauda* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

1901. *Hemiderma perspicillatum* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 192, September 1901.

1924. *Carollia perspicillata perspicillata* Miller, U. S. Nat. Mus. Bull. 128, p. 53, Apr. 29, 1924.

Type Locality.—Surinam (see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 130, Mar. 22, 1911). *Range.*—Probably the whole of tropical and subtropical South America, Trinidad, the Lesser, and perhaps the Greater, Antilles. The northern limit may be considered to be Panamá.

Carollia perspicillata azteca Saussure*

1860. *Carollia azteca* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 480, November 1860.

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[29] Revised (under the name *Hemiderma*) by Hahn, Proc. U. S. Nat. Mus., vol. 32, pp. 103–118, Feb. 8, 1907.

1907. *Hemiderma perspicillatum aztecum* Hahn, Proc. U. S. Nat. Mus., vol. 32, p. 111, Feb. 8, 1907.

1924. *Carollia perspicillata azteca* Miller, U. S. Nat. Mus. Bull. 128, p. 54, Apr. 29, 1924.

Type Locality.—Southern México (restricted to Peréz, Veracruz, by Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 2, July 10, 1950). *Range.*—Hot, humid regions of southern México and Central America from Panamá as far north as Orizaba, Veracruz. Recorded also at Xilitla, San Luis Potosí, México (Dalquest, loc. cit.), and Belize and Stann Creek Valley, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 555, July 10, 1951).

Carollia subrufa (Hahn) †*

1905. *Hemiderma subrufum* Hahn, Proc. Biol. Soc. Washington, vol. 18, p. 247, Dec. 9, 1905.

Type Locality.—Santa Efigenia, a hacienda 8 miles northwest of Tepanatepec, near west coast of Oaxaca, México. *Range.*—Southern México to Guatemala (Van Tyne, Journ. Mamm., vol. 14, No. 2, p. 145, May 15, 1933) and Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 131, May 29, 1942). Recorded also at Bokowina and Stann Creek Valley in British Honduras and at Chetumal in Quintana Roo (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 556, July 10, 1951).

Carollia castanea H. Allen†*

1890. *Carollia castanea* H. Allen, Proc. Amer. Philos. Soc., vol. 28, p. 19, Feb. 25, 1890.

Type Locality.—Costa Rica. *Range.*—Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 132, May 29, 1942) south to Panamá (G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 227, Aug. 12, 1935).

Subfamily STURNIRINAE

Genus STURNIRA Gray

1842. *Sturnira* Gray, Ann. Mag. Nat. Hist., vol. 10, p. 257, December 1842. (Type, *Sturnira spectrum* Gray=*Phyllostoma lilium* É. Geoffroy-Saint-Hilaire.)

Sturnira lilium parvidens Goldman†*

1884. *Sturnira lilium* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1917. *Sturnira lilium parvidens* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 116, May 23, 1917.

Type Locality.—Papayo (about 25 miles northwest of Acapulco), Guerrero, México. *Range.*—From Guerrero and Campeche, México, south to Panamá (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 132, May 29, 1942).

Sturnira hondurensis Goodwin

1940. *Sturnira hondurensis* Goodwin, Amer. Mus. Nov., No. 1075, p. 1, June 27, 1940.

Type Locality.—La Cruz Grande near San José, La Paz, Honduras. Altitude about 3,000 feet. *Range.*—Honduras to Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 317, Dec. 31, 1946).

Genus STURNIROPS Goodwin

1938. *Sturnirops* Goodwin, Amer. Mus. Nov., No. 976, p. 1, May 4, 1938. (Type, *Sturnirops mordax* Goodwin. Validity questioned by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 442, May 10, 1949.)

Sturnirops mordax Goodwin†*

1938. *Sturnirops mordax* Goodwin, Amer. Mus. Nov., No. 976, p. 1, May 4, 1938.

Type Locality.—El Sauce Peralta, a farm on the Atlantic Railroad, less than halfway from San José to Limón, Cartago, Costa Rica. *Range.*—Known from type locality only.

Subfamily STENODERMINAE

Genus BRACHYPHYLLA Gray

1834. *Brachyphylla* Gray, Proc. Zool. Soc. London, 1833, pt. 1, p. 122, Mar. 12, 1834. (Type, *Brachyphylla cavernarum* Gray.)

Brachyphylla cavernarum Gray*

1834. *Brachyphylla cavernarum* Gray, Proc. Zool. Soc. London, 1833, pt. 1, p. 123, Mar. 12, 1834.

1884. *Brachyphyllum cavernarum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

Type Locality.—St. Vincent, Lesser Antilles.

Brachyphylla minor Miller†*

1913. *Brachyphylla minor* Miller, Proc. Biol. Soc. Washington, vol. 26, p.32, Feb. 8, 1913.

Type Locality.—Coles Cave, St. Thomas Parish, Barbados, Lesser Antilles.

Brachyphylla nana Miller†*

1902. *Brachyphylla nana* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 409, Sept. 12, 1902.

Type Locality.—El Guamá, Pinar del Rio, Cuba.

Brachyphylla pumila Miller†*

1918. *Brachyphylla pumila* Miller, Proc. Biol. Soc. Washington, vol. 31, p. 39, May 16, 1918.

Type Locality.—Cave near Port de Paix, Haiti. *Range.*—Also recorded from Santo Domingo (Goodwin, Journ. Mamm., vol. 14, No. 2, p. 154, May 15, 1933).

Genus URODERMA[80] Peters

1865. *Uroderma* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 588. (Type, *Phyllostoma personatum* Peters (not Wagner) = *Uroderma bilobatum* Peters.)

Uroderma bilobatum Peters*

1866. *Uroderma bilobatum* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1866, p. 394.

1902. *Uroderma convexum* Lyon†, Proc. Biol. Soc. Washington, vol. 15, p. 83, Apr. 25, 1902. (Colón, Panamá.)

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[80] Revised by Andersen, Proc. Zool. Soc. London, 1908, vol. 2, pp. 212–221, September 7, 1908.

Type Locality.—São Paulo, Brazil. *Range.*—From São Paulo and Perú at least as far north as Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 318, Dec. 31, 1946).

Genus VAMPYROPS Peters

1865. *Vampyrops* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 356. (Type, *Phyllostoma lineatum* É. Geoffroy-Saint-Hilaire.)

Vampyrops helleri Peters*

1866. *Vampyrops helleri* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1866, p. 392.

1891. *Vampyrops zarhinus* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 43, p. 400. ("Brazil"; actually Bas Obispo, Canal Zone, Panamá. See Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 200, Apr. 26, 1929.)

1902. *Vampyrops helleri* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 50, April 1902.

Type Locality.—México. *Range.*—México south to Panamá (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 319, Dec. 31, 1946).

Vampyrops lineatus (É. Geoffroy-Saint-Hilaire) *

1810. *Phyllostoma lineatum* É. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, p. 180.

1866. *V[ampyrops] lineatus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1866, p. 392.

1884. *Vampyrops lineatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

Type Locality.—Paraguay. *Range.*—Supposed to range north to Central America.

Vampyrops vittatus (Peters) *

1859. *Artibeus vittatus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1859, p. 225.

1865. *V[ampyrops] vittatus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 356.

1884 *Vampyrops vittatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

Type Locality.—Puerto Cabello, Carabobo, Venezuela. *Range.*—Venezuela and north to Costa Rica.

Genus VAMPYRODES Thomas

1900. *Vampyrodes* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 270, March 1900. (Type, *Vampyrodes caracciolae* Thomas.)

Vampyrodes major G. M. Allen

1908. *Vampyrodes major* G. M. Allen, Bull. Mus. Comp. Zool., vol. 52, p. 38, July 1908.

Type Locality.—San Pablo, Panamá. *Range.*—Panamá north to Guatemala (Sanborn, Field Mus. Nat. Hist. Publ. 361, Zool. Ser., vol. 20, p. 101, Aug. 15, 1936).

Genus VAMPYRESSA Thomas

1900. *Vampyressa* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 270, March 1900. (Type, *Phyllostoma pusillum* Wagner.)

Vampyressa minuta Miller†*

1912. *Vampyressa minuta* Miller, Proc. U. S. Nat. Mus., vol. 42, p. 25, Mar. 6, 1912. (Regarded as identical with *Vampyressa thyone* Thomas by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 444, May 10, 1949.)

Type Locality.—Cabima, Panamá, Panamá. *Range.*—Panamá north to Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 321, Dec. 31, 1946).

Genus CHIRODERMA Peters

1860. *Chiroderma* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1860, p. 747. (Type, *Chiroderma villosum* Peters.)

Chiroderma isthmicum Miller†*

1912. *Chiroderma isthmicum* Miller, Proc. U. S. Nat. Mus., vol. 42, p. 25, Mar. 6, 1912.

Type Locality.—Cabima, Panamá, Panamá. *Range.*—Panamá north to Veracruz, México (G. M. Allen, Journ. Mamm., vol. 8, No. 2, p. 158, May 11, 1927).

Chiroderma salvini Dobson*

1878. *Chiroderma salvini* Dobson, Catalogue of the Chiroptera in the . . . British Museum, p. 532.

1884. *Chiroderma salvini* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

Type Locality.—Costa Rica. *Range.*—Colombia north to Honduras (Sanborn, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 379, Dec. 8, 1941).

Genus ECTOPHYLLA H. Allen

1892. *Ectophylla* H. Allen, Proc. U. S. Nat. Mus., vol. 15, p. 441, Oct. 26, 1892. (Type, *Ectophylla alba* H. Allen.)

Ectophylla alba H. Allen†*

1892. *Ectophylla alba* H. Allen, Proc. U. S. Nat. Mus., vol. 15, p. 442, Oct. 26, 1892.

Type Locality.—Segovia River, Eastern Honduras [=Comarca de El Cabo, northern Nicaragua]. *Range.*—Honduras and Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 323, Dec. 31, 1946).

Genus ARTIBEUS[31] Leach

1821. *Artibeus* Leach, Trans. Linn. Soc. London, vol. 13, p. 75. (Type, *Artibeus jamaicensis* Leach.)

1855. *Dermanura* Gervais, *in* [Castelnau, Expédition dans les parties centrales de l'Amérique du Sud, . . . , pt. 7, Zoologie:] Animaux nouveaux, ou rares, recueillis . . . , p. 36. (Type, *Dermanura cinereum* Gervais.)

Artibeus hirsutus Andersen†*

1906. *Artibeus hirsutus* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 420, December 1906.

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[31] Revised by Andersen, Proc. Zool. Soc. London, 1908, vol. 2, pp. 224–319, Sept. 7, 1908.

Type Locality.—La Salada, Michoacán, México. *Range.*—States of Michoacán, Colima, and Jalisco, México.

Artibeus jamaicensis jamaicensis Leach*

1821. *Artibeus jamaicensis* Leach, Trans. Linn. Soc. London, vol. 13, p. 75.
1884. *Artibeus perspicillatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.
1889. *Dermanura eva* Cope, Amer. Nat., vol. 23, p. 130, February 1889. (St. Martins, Lesser Antilles.)
1890. *Artibeus coryi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 173, Nov. 14, 1890. (St. Andrews, Caribbean Sea.)
1901. *Artibeus jamaicensis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 192, September 1901.
1904. *Artibeus insularis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 231, June 29, 1904. (St. Kitts, Lesser Antilles.)
1908. *Artibeus jamaicensis richardsoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 669, Oct. 13, 1908. (Matagalpa, Matagalpa, Nicaragua. Regarded as identical with *jamaicensis* by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 446, May 10, 1949.)

Type Locality.—Jamaica. *Range.*—Central America and southern México, exclusive of Yucatán, north to Morelos and central Veracruz; St. Andrews and Old Providence Islands; Jamaica, Puerto Rico, Santo Domingo, Barbados, and Lesser Antilles as far east as St. Kitts.

Artibeus jamaicensis parvipes Rehn*

1902. *Artibeus parvipes* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 639, Dec. 8, 1902.
1908. *Artibeus jamaicensis parvipes* Andersen, Proc. Zool. Soc. London, 1908, vol. 2, p. 261, Sept. 7, 1908.

Type Locality.—Santiago de Cuba, Oriente, Cuba. *Range.*—Cuba, perhaps extending to Key West, Florida (Maynard, Quart. Journ. Boston Zool. Soc., vol. 2, No. 2, p. 22, April 1883).

Artibeus jamaicensis grenadensis Andersen*

1906. *Artibeus planirostris grenadensis* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 420, December 1906. (Regarded as a synonym of *Artibeus jamaicensis trinitatis* Andersen by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 447, May 10, 1949.)

Type Locality.—Grenada, Lesser Antilles. *Range.*—Grenada.

Artibeus jamaicensis yucatanicus J. A. Allen*

1904. *Artibeus yucatanicus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 232, June 29, 1904.
1908. *Artibeus jamaicensis yucatanicus* Andersen, Proc. Zool. Soc. London, 1908, vol. 2, p. 263, Sept. 7, 1908.
1938. *Artibeus jamaicensis yucatanensis* Hatt, Journ. Mamm., vol. 19, No. 3, p. 335, Aug. 18, 1938.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Yucatán, including coast islands, and Guatemala (Van Tyne, Journ. Mamm., vol. 14, No. 2, p. 145, May 15, 1933).

Artibeus jamaicensis planirostris (Spix)*

1823. *Phyllostoma planirostre* Spix, Simiarum et vespertilionum Brasiliensium . . . , p. 66.

1878. *Artibeus planirostris* Dobson, Catalogue of the Chiroptera in the . . . British Museum, p. 515. (Part.)

1949. *A*[*rtibeus*] *j*[*amaicensis*] *planirostris* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 447, May 10, 1949.

Type Locality.—Suburbs of Bahia, Brazil. *Range.*—From central Brazil to southern México.

Artibeus lituratus palmarum J. A. Allen and Chapman*

1897. *Artibeus palmarum* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 16, Feb. 26, 1897.

1897. *Artibeus intermedius* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 33, Mar. 11, 1897. (San José, Costa Rica.)

1908. *Artibeus jamaicensis palmarum* Andersen, Proc. Zool. Soc. London, 1908, vol. 2, p. 278, Sept. 7, 1908.

1949. *A*[*rtibeus*] *l*[*ituratus*] *palmarum* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 447, May 10, 1949.

Type Locality.—Botanical Gardens at Port of Spain, Trinidad, British West Indies. *Range.*—Venezuela, including Trinidad and St. Vincent islands, Grenada, British West Indies (Jones, Journ. Mamm., vol. 32, No. 2, p. 224, May 21, 1951), through Central America, to Veracruz and Jalisco [=Nayarit], México. Recorded also at Xilitla, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 3, July 10, 1950), at Mérida and Tekom in Yucatán, and at Silkgrass and Stann Creek Valley in British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 557, July 10, 1951).

Artibeus lituratus praeceps Andersen†*

1906. *Artibeus jamaicensis praeceps* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 421, December 1906.

1949. *A*[*rtibeus*] *l*[*ituratus*] *praeceps* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 447, May 10, 1949. (Regarded as doubtfully distinct from *palmarum.*)

Type Locality.—Guadeloupe, Lesser Antilles. *Range.*—Islands of Guadeloupe and Dominica.

Artibeus cinereus toltecus (Saussure)*

1860. *Stenoderma tolteca* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 427, October 1860.

1884. *Artibeus cinereus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1908. *A*[*rtibeus*] *toltecus toltecus* Andersen, Proc. Zool. Soc. London, 1908, vol. 2, p. 300, Sept. 7, 1908.

1949. *Artibeus cinereus toltecus* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 449, May 10, 1949.

Type Locality.—México (Restricted to Mirador, Veracruz, by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 449, May 10, 1949). *Range.*—Central America, southern and central México, as far north as Durango. Recorded also at Plan del Río, Veracruz, México (Davis, Journ. Mamm., vol. 25, No. 4, p. 378, Dec. 12, 1944).

Artibeus cinereus phaeotis (Miller)†*

1902. *Dermanura phaeotis* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 405, Sept. 12, 1902.

1906. *Dermanura jucundum* Elliot, Proc. Biol. Soc. Washington, vol. 19, p. 50, May 1, 1906. (Achotal, Veracruz, México.)

1949. *Artibeus cinereus phaeotis* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 449, May 10, 1949.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Yucatán and southern México, and Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 12, Dec. 12, 1934).

Artibeus cinereus watsoni Thomas*

1901. *Artibeus watsoni* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 7, p. 542, June 1901.

1949. *Artibeus cinereus watsoni* Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 449, May 10, 1949.

Type Locality.—Bogava [Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. *Range.*—Panamá north to Guatemala (Sanborn, Field Mus. Nat. Hist. Publ. 361, Zool. Ser., vol. 20, p. 104, August 15, 1936).

Artibeus aztecus Andersen†*

1906. *Artibeus aztecus* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 422, December 1906.

Type Locality.—Tetela del Volcán, Morelos, México. *Range.*—As yet only known from Morelos, México.

Artibeus turpis Andersen

1906. *Artibeus turpis* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 422, December 1906.

Type Locality.—Teapa, Tabasco, México. *Range.*—Known from type locality only.

Artibeus nanus Andersen*

1906. *Artibeus nanus* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 423, December 1906.

Type Locality.—Tierra Colorada, Sierra Madre del Sur, Guerrero, México. *Range.*—From Guanacaste, northwestern Costa Rica (Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 8, Oct. 8, 1943) north to Guatemala and Sinaloa, México (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 136, May 29, 1942).

Genus ENCHISTHENES Andersen

1906. *Enchisthenes* Andersen, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 419, December 1906. (Type *Artibeus hartii* Thomas.)

Enchisthenes hartii (Thomas)

1892. *Artibeus hartii* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 10, p. 408, November 1892.

1908. *Enchisthenes harti* Andersen, Proc. Zool. Soc. London, 1908, vol. 2, p. 224, Sept. 7, 1908.

Type Locality.—Trinidad Island, British West Indies. *Range.*—Recorded from Trinidad, Venezuela, southern Ecuador, and Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 325, Dec. 31, 1946).

Genus ARDOPS Miller

1906. *Ardops* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906. (Type *Stenoderma nichollsi* Thomas.)

Ardops annectens Miller†*

1913. *Ardops annectens* Miller, Proc. Biol. Soc. Washington, vol. 26, p. 33, Feb. 8, 1913.

Type Locality.—Guadeloupe, Lesser Antilles.

Ardops luciae (Miller)†*

1902. *Stenoderma luciae* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 407, Sept. 12, 1902.

1906. *A*[*rdops*] *luciae* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—St. Lucia, Lesser Antilles.

Ardops montserratensis (Thomas)

1894. *Stenoderma montserratense* Thomas, Proc. Zool. Soc. London, 1894, pt. 1, p. 133, June 1894.

1906. *A*[*rdops*] *montserratensis* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—Montserrat, Lesser Antilles.

Ardops nichollsi (Thomas)*

1891. *Stenoderma nichollsi* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 7, p. 529, June 1891.

1906. *Ardops nichollsi* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—Dominica, Lesser Antilles.

Genus PHYLLOPS Peters

1865. *Phyllops* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 356. (Type, *Phyllostoma albomaculatum* Gundlach=*Arctibeus falcatus* Gray.)

Phyllops falcatus (Gray)*

1839. *Arctibeus falcatus* Gray, Ann. Nat. Hist., vol. 4, p. 1, September 1839.

1884. *Stenoderma falcatum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1907. *Phyllops falcatus* Miller, U. S. Nat. Mus. Bull. 57, p. 165, June 29, 1907.

Type Locality.—Cuba.

Phyllops haitiensis (J. A. Allen)*

1908. *Ardops haitiensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 581, Sept. 11, 1908.

1917. *Phyllops haitiensis* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 337, May 28, 1917.

Type Locality.—Caña Honda, Dominican Republic. *Range.*—Also recorded from Haiti (Sanborn, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 379, Dec. 8, 1941).

Phyllops vetus Anthony*

1917. *Phyllops vetus* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 337, May 28, 1917.

Type Locality.—Cave at Daiquirí, Oriente, Cuba. (Known from skeletal remains only.)

Genus ARITEUS Gray

1838. *Ariteus* Gray, Mag. Zool. Bot., vol. 2, p. 491, February 1838. (Type, *Istiophorus flavescens* Gray=*Artibeus achradophilus* Gosse.)

Ariteus flavescens (Gray) *

1831. *Istiophorus flavescens* Gray, Zool. Misc., No. 1, p. 37, February 1831.
1838. *Ariteus flavescens* Gray, Mag. Zool. Bot., vol. 2, p. 491, February 1838.
1884. *Stenoderma achradophilum* True, Proc., U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.
1912. *Ariteus flavescens* Miller, U. S. Nat. Mus. Bull. 79, p. 49, Dec. 31, 1912.

Type Locality.—Unknown. *Range.*—Jamaica.

Genus STENODERMA [32] Oken

1816. *Stenoderma* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3, (Zoologie), sect. 2, p. 922. (See Lyon, Proc. Biol. Soc. Washington, vol 27, p. 217, Oct. 31, 1914. Type, *Stenoderma rufus* Oken.)

Stenoderma rufus Oken*

1816. *St[enoderma] rufus* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sec. 2, p. 922.
1918. *Stenoderma rufum* Anthony, Mem. Amer. Mus. Nat. Hist., new ser., vol. 2, pt. 2, p. 352, Oct. 12, 1918.

Type Locality.—Unknown. Skeletal remains recorded by Anthony from caves in Puerto Rico.

Genus PYGODERMA Peters

1863. *Pygoderma* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1863, p. 83. (Type, *Stenoderma* (*Pygoderma*) *microdon* Peters=*Phyllostoma bilabiatum* Wagner.)

Pygoderma bilabiatum (Wagner) *

1843. *Phyllostoma bilabiatum* Wagner, Arch. Naturg., Jahrg. 9, vol. 1, p. 366.
1865. *P[ygoderma] bilabiatum* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 357.
1884. *Pygoderma bilabiatum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

Type Locality.—Ipanema, São Paulo, Brazil. *Range.*—Southern Brazil north to southern México.

Genus CENTURIO [33] Gray

1842. *Centurio* Gray, Ann. Mag. Nat. Hist., vol. 10, p. 259, December 1842. (Type, *Centurio senex* Gray.)

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[32] Names published by Oken in 1816 regarded by Hershkovitz (Journ. Mamm., vol. 30, No. 3, p. 295, Aug. 17, 1949) as non-Linnaean and not available.

[33] Revised by Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 53, pp. 295–302, June 8, 1901.

Centurio senex Gray*

1842. *Centurio senex* Gray, Ann. Mag. Nat. Hist., vol. 10, p. 259, December 1842.

1860. *Centurio mexicanus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 381. ("Les regions chaudes du Méxique.")

1861. *Centurio mcmurtrii* H. Allen†, Proc. Acad. Nat. Sci. Philadelphia, vol. 13, p. 360, Nov. 26, 1861. (Mirador, Veracruz, México.)

1884. *Centurio senex* and *Centurio mcmurtrii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1891. *Centurio minor* Ward, Amer. Nat., vol. 25, p. 750, August 1891. (Cerro de los Pájaros, Las Vigas, Veracruz, México.)

Type Locality.—Unknown. Restricted to Realejo, Chinandega, Nicaragua, by Goodwin (Bull. Amer. Mus. Nat. Hist., vol. 87, p. 327, Dec. 31, 1946). *Range.*—From south-central México to Costa Rica.

Subfamily PHYLLONYCTERINAE

Genus EROPHYLLA Miller

1906. *Erophylla* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906. (Type, *Phyllonycteris bombifrons* Miller.)

Erophylla bombifrons (Miller)†*

1899. *Phyllonycteris bombifrons* Miller, Proc. Biol. Soc. Washington, vol. 13, p. 36, May 29, 1899.

1906. *Erophylla bombifrons* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—Cave near Bayamón, Puerto Rico. *Range.*—Puerto Rico.

Erophylla planifrons planifrons (Miller)†*

1899. *Phyllonycteris planifrons Miller,* Proc. Biol. Soc. Washington, vol. 13, p. 34, May 29, 1899.

196. *E[rophylla] planifrons* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—Nassau, New Providence, Bahamas.

Erophylla planifrons mariguanensis Shamel†*

1931. *Erophylla planifrons mariguanensis* Shamel, Journ. Washington Acad. Sci., vol. 21, p. 252, June 4, 1931.

Type Locality.—Abrahams Hill, Mariguana [=Mayaguana] Island, Bahamas.

Erophylla santacristobalensis (Elliot)*

1905. *Phyllonycteris santa-cristobalensis* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 236, Dec. 9, 1905.

1906. *E[rophylla] santacristobalensis* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—San Cristóbal, Dominican Republic.

Erophylla sezekorni sezekorni (Gundlach)*

1861. *Phyllonycteris sezekorni* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1860, p. 818.

1884. *Phyllonycteris sezekorni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1906. *E[rophylla] sezekorni* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 84, June 4, 1906.

Type Locality.—Cuba.

Erophylla sezekorni syops G. M. Allen*

1917. *Erophylla sezekorni syops* G. M. Allen, Proc. Biol. Soc. Washington, vol. 30, p. 167, Oct. 23, 1917.

Type Locality.—Montego Bay, Jamaica. *Range.*—Jamaica.

Genus PHYLLONYCTERIS Gundlach

1861. *Phyllonycteris* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1860, p. 817. (Type, *Phyllonycteris poeyi* Gundlach.)

Phyllonycteris major Anthony

1917. *Phyllonycteris major* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 567, Sept. 7, 1917.

Type Locality.—Cave near Morovis, Puerto Rico. (Known from skeletal remains only.)

Phyllonycteris obtusa Miller†*

1929. *Phyllonycteris obtusa* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 10, Mar. 30, 1929.

Type Locality.—Cave near the Atalaye plantation, about 4 miles east of St. Michel, Haiti. (Known from skeletal remains only.)

Phyllonycteris poeyi Gundlach*

1861. *Ph[yllonycteris] poeyi* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1860, p. 817.

1884. *Phyllonycteris poeyi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 604, Nov. 29, 1884.

Type Locality.—Cuba.

Genus REITHRONYCTERIS Miller

1898. *Reithronycteris* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 333, Aug. 2, 1898. (Type, *Reithronycteris aphylla* Miller.)

Reithronycteris aphylla Miller†*

1898. *Reithronycteris aphylla* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 334, Aug. 2, 1898.

Type Locality.—Jamaica.

Family DESMODONTIDAE (vampire bats)

Genus DESMODUS Wied-Neuwied

1826. *Desmodus* Wied-Neuwied, Beiträge zur Naturgeschichte von Brasilien, vol. 2, p. 231. (Type, *Desmodus rufus* Wied-Neuwied=*Phyllostoma rotundum* É. Geoffroy-Saint-Hilaire.)

Desmodus rotundus murinus Wagner*

1840. *D[esmodus] murinus* Wagner, *in* Schreber, Die Säugthiere . . ., Suppl., vol. 1, p. 377.

1884. *Desmodus rufus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1912. *Desmodus rotundus murinus* Osgood, Field Mus. Nat. Hist. Publ. 155, Zool. Ser., vol. 10, p. 63, Jan. 10, 1912.

Type Locality.—México. *Range.*—Hidalgo, Guerrero, Veracruz (Davis, Journ. Mamm., vol. 25, No. 4, p. 378, Dec. 12, 1944), Yucatán and Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 230, Sept. 28, 1950), south to Panamá (G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 227, Aug. 12, 1935).

Genus DIPHYLLA Spix

1823. *Diphylla* Spix, Simiarum et vespertilionum Brasiliensium . . ., p. 68. (Type, *Diphylla ecaudata* Spix.)

Diphylla ecaudata centralis Thomas*

1884. *Diphylla ecaudata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 605, Nov. 29, 1884.

1903. *Diphylla centralis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 378, April 1903.

1942. *Diphylla ecaudata centralis* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 138, May 29, 1942.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 4,500 feet. *Range.*—Panamá north to Quintana Roo (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 231, Sept. 28, 1950), Yucatán (Hatt, Journ. Mamm., vol. 19, No. 3, p. 335, Aug. 18, 1938), Ojo de Agua, 7 kilometers east-northeast of Cordoba, Veracruz, and Jacala, Hidalgo (Dalquest and Hall, Trans. Kansas Acad. Sci., vol. 50, Nos. 3–4, p. 315, December 1947), and Xilitla, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State. Univ. No. 23, p. 3, July 10, 1950).

Superfamily VESPERTILIONOIDEA

Family NATALIDAE

Genus NATALUS Gray

1838. *Natalus* Gray, Mag. Zool. Bot., vol. 2, p. 496, December 1838. (Type, *Natalus stramineus* Gray.)

Subgenus NATALUS Gray

Natalus mexicanus mexicanus Miller†*

1902. *Natalus mexicanus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 399, Sept. 12, 1902.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Dry region of Baja California and northwestern México; eastward to Mojaráchic, Chihuahua (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 297, Aug. 14, 1942), and to Itzatlán, Jalisco, México (Dalquest and Hall, Proc. Biol. Soc. Washington, vol. 62, p. 154, Aug. 23, 1949).

Natalus mexicanus saturatus Dalquest and Hall*

1949. *Natalus mexicanus saturatus* Dalquest and Hall, Proc. Biol. Soc. Washington, vol. 62, p. 153, Aug. 23, 1949.

Type Locality.—Three kilometers east of San Andres Tuxtla, Veracruz, México. Altitude, 1,000 feet. *Range.*—Eastern México from southern San Luis Potosí to Campeche; southern extent of range unknown. Recorded as *mexicanus* at Chichén-Itzá, Yucatán (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 557, July 10, 1951).

Natalus major Miller†*

1902. *Natalus major* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 398, Sept. 12, 1902.

Type Locality.—Near Savaneta, Dominican Republic. *Range.*—Also recorded from Haiti (Sanborn, Field Mus. Nat. Hist., Publ. 511, Zool. Ser., vol. 27, p. 380, Dec. 8, 1941).

Natalus dominicensis Shamel†*

1884. *Natalus stramineus* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 603, Nov. 29, 1884. (Part.)

1928. *Natalus dominicensis* Shamel, Proc. Biol. Soc. Washington, vol. 41, p. 67, Mar. 16, 1928.

Type Locality.—Dominica, Lesser Antilles. *Range.*—Recorded also from Antigua (G. M. Allen, Extinct and vanishing mammals of the Western Hemisphere . . ., p. 29, Dec. 11, 1942).

Natalus primus Anthony

1919. *Natalus primus* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 41, p. 642, Dec. 30, 1919.

Type Locality.—Cueva de los Indios, Daiquiri, Oriente, Cuba. *Range.*—Known only from skeletal remains from Island of Cuba.

Subgenus NYCTIELLUS Gervais

1855. *Nyctiellus* Gervais, Mammifères, *in* [Castelnau, Expédition dans les parties centrales de l'Amérique du Sud, . . ., pt. 7, Zoologie:] Animaux nouveaux, ou rares, recueillis . . ., p. 84, (Type, *Vespertilio lepidus* Gervais.)

Natalus lepidus (Gervais)*

1837. *Vespertilio lepidus* Gervais, L'Institut, Paris, vol. 5, No. 218, p. 253, August 1837.

1840. *Vespertilio lepidus* Gervais, *in* Ramon de la Sagra, Histoire physique, politique et naturelle de l'Île de Cuba, pt. 2, Mammifères, p. 6.

1855. *Nyctiellus lepidus* Gervais, Mammifères, *in* [Castelnau, Expédition dans les parties centrales de l'Amérique du Sud, . . . , pt. 7, Zoologie:] Animaux nouveaux, ou rares, recueillis . . . , p. 84.

1884. *Natalus lepidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1904. *Nyctiellus lepidus* Miller, Proc. U. S. Nat. Mus., vol. 27, p. 340, Jan. 23, 1904.

1950. *Natalus lepidus* Dalquest, Journ. Mamm., vol. 31, No. 4, p. 443, Nov. 21, 1950.

Type Locality.—Cuba. *Range.*—Cuba, Isle of Pines, and Long and Cat Islands, Bahamas (G. M. Allen and Sanborn, Journ. Mamm., vol. 18, No. 2, p. 226, May 12, 1937).

Subgenus CHILONATALUS Miller

1898. *Chilonatalus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 326, July 12, 1898. (Type, *Natalus micropus* Dobson.)

Natalus brevimanus Miller†*

1898. *Natalus* (*Chilonatalus*) *brevimanus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 328, July 12, 1898.

1903. *C[hilonatalus] brevimanus* Miller, Proc. Biol. Soc. Washington, vol. 16, p. 119, Sept. 30, 1903.

1950. *Natalus brevimanus* Dalquest, Journ. Mamm., vol. 31, No. 4, p. 443, Nov. 21, 1950.

Type Locality.—Old Providence Island, off coast of Nicaragua, Caribbean Sea. *Range.*—Old Providence Island.

Natalus macer (Miller)†*

1914. *Chilonatalus macer* Miller, Proc. Biol. Soc. Washington, vol. 27, p. 225, Dec. 29, 1914.

1950. *Natalus macer* Dalquest, Journ. Mamm., vol. 31, No. 4, p. 443, Nov. 21, 1950.

Type Locality.—Baracoa, Oriente, Cuba. *Range.*—Cuba.

Natalus micropus Dobson*

1880. *Natalus micropus* Dobson, Proc. Zool. Soc. London, 1880, pt. 3, p. 443, October 1880.

1903. *Chilonatalus micropus* Miller, Proc. Biol. Soc. Washington, vol. 16, p. 119, Sept. 30, 1903.

1950. *Natalus micropus* Dalquest, Journ. Mamm., vol. 31, No. 4, p. 443, Nov. 21, 1950.

Type Locality.—Kingston, Jamaica. *Range.*—Jamaica.

Natalus tumidifrons (Miller)†*

1903. *Chilonatalus tumidifrons* Miller, Proc. Biol. Soc. Washington, vol. 16, p. 119, Sept. 30, 1903.

1950. *Natalus tumidifrons* Dalquest, Journ. Mamm., vol. 31, No. 4, p. 443, Nov. 21, 1950.

Type Locality.—Watling Island, Bahama Islands. *Range.*—Watling Island.

Family THYROPTERIDAE (disk-winged bats)

Genus THYROPTERA Spix

1823. *Thyroptera* Spix, Simiarum et vespertilionum Brasiliensium . . . , p. 61. (Type, *Thyroptera tricolor* Spix.)

Thyroptera discifera discifera (Lichtenstein and Peters)*

1854. *Hyonycteris discifera* Lichtenstein and Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1854, p. 336.

1865. *Th[yroptera] discifera* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 581.

1931. *Thyroptera discifera discifera* Miller, Journ. Mamm., vol. 12, No. 4, p. 411, Nov. 11, 1931.

Type Locality.—Puerto Caballos, District of Cortés, Honduras. *Range.*—Recorded from Honduras and Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 330, Dec. 31, 1946).

Thyroptera tricolor albigula G. M. Allen*

1923. *Thyroptera tricolor albigula* G. M. Allen, Proc. New England Zool. Club, vol. 9, p. 1, Dec. 10, 1923.

1931. *Thyroptera tricolor albiventer* (nec Tomes) Dunn, Journ. Mamm., vol. 12, No. 4, p. 430, Nov. 11, 1931. (*Lapsus calami.*)

Type Locality.—Gutiérrez, in the mountains about 25 miles inland from Chiriquiscito, on trail from Chiriquí Lagoon to Bóquete, Chiriquí, western Panamá. Altitude, 4,000 feet. *Range.*—Colombia (Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 450, May 10, 1949), Panamá (recorded from Rio Jesucito, eastern Panamá, by G. M. Allen and T. Barbour, Bull. Mus. Comp. Zool. Harvard, vol. 65, No. 8, p. 272, February 1923; and from Barro Colorado Island, Canal Zone, by Dunn, Journ. Mamm., vol. 12, No. 4, p. 429, Nov. 11, 1931), north to Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 140, May 29, 1942).

Family VESPERTILIONIDAE

Subfamily VESPERTILIONINAE

Genus MYOTIS[34] Kaup

1829. *Myotis* Kaup, Skizzirte Entwickelungs-Geschichte und natürliches System der Europäischen Thierwelt, pt. 1, p. 106. (Type, *Vespertilio myotis* Borkhausen.)

Myotis lucifugus lucifugus (Le Conte) (little brown bat)*

1831. *V[espertilio] lucifugus* Le Conte, *in* McMurtrie, The animal kingdom . . . by the Baron Cuvier, vol. 1, App., p. 431.

1884. *Vespertilio lucifugus* and *Vespertilio carolii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1897. *Myotis lucifugus* Miller, North Amer. Fauna No. 13, p. 59, Oct. 16, 1897.

Type Locality.—Georgia; probably the Le Conte plantation, near Riceboro, Liberty County. *Range.*—The entire forested portion of North America north of southern border of United States except in Rocky Mountain region and on Pacific coast of California, Oregon, Washington, British Columbia, and southern Alaska; also recorded from 5 kilometers northwest of Texcoco, México (state), México (Davis, Journ. Mamm., vol. 25, No. 4, p. 379, Dec. 12, 1944).

Myotis lucifugus alascensis Miller†*

1897. *Myotis lucifugus alascensis* Miller, North Amer. Fauna No. 13, p. 63, Oct. 16, 1897.

Type Locality.—Sitka, Alaska. *Range.*—Moist coastal region of western North America, from the archipelago of southern Alaska south through British

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[34] Revised by Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, pp. 1–209, May 25, 1928. California races of *Myotis yumanensis* reviewed by Dalquest, Amer. Midl. Nat., vol. 38, No. 1, pp. 224–247, July 1947.

Columbia and thence southeastward following saturate area into southeastern Washington (Blue Mountains) and extreme western Montana, and again coastwise through western Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 148, Apr. 9, 1948) and Oregon to northwest coastal strip of California (Humboldt County); casual in western Alberta, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 25, Jan. 24, 1947).

Myotis lucifugus pernox Hollister†*

1911. *Myotis pernox* Hollister, Smithsonian Misc. Coll., vol. 56, No. 26, p. 4, Dec. 5, 1911.

1943. *Myotis lucifugus pernox* Crowe, Bull. Amer. Mus. Nat. Hist., vol. 80, p. 395, Feb. 4, 1943.

Type Locality.—Henry House, Alberta, Canada. *Range.*—Rocky Mountain region of western Alberta (Jasper National Park), and probably also eastern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 26, Jan. 24, 1947).

Myotis lucifugus carissima Thomas*

1904. *Myotis* (*Leuconoe*) *carissima* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 383, May 1904.

1916. *Myotis yumanensis altipetens* H. W. Grinnell, Univ. California Publ. Zool., vol. 17, No. 2, p. 9, Aug. 23, 1916. (One mile east of Merced Lake, Yosemite National Park, Calif. Altitude, 7,500 feet.)

1917. *Myotis lucifugus carissima* Cary, North Amer. Fauna No. 42, p. 43, Oct. 3, 1917.

1919. *Myotis albicinctus* G. M. Allen, Journ. Mamm., vol. 1, No. 1, p. 2, Nov. 28, 1919. (At upper limit of timber, Mount Whitney, Tulare County, Calif. Altitude, 11,000 feet.)

Type Locality.—Lake Hotel, Yellowstone Park, Wyo. (information from collector through O. Thomas). *Range.*—Semiarid portions of western United States from southern and eastern Montana and parts of Wyoming west to eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 148, Apr. 9, 1948); eastern Oregon; and entire Sierra Nevada from vicinity of Mount Whitney northward as well as San Bernardino Mountains (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 86, Sept. 26, 1933); south to Fort Hancock, El Paso County, Tex. (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat Hist., vol. 1, No. 25, p. 585, Jan. 20, 1950). Recorded also from Sioux County, northwestern Nebraska (Webb and Jones, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 21, p. 273, May 31, 1952).

Myotis lucifugus phasma Miller and G. M. Allen†*

1928. *Myotis lucifugus phasma* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 53, May 25, 1928.

Type Locality.—Snake River, south of Sunny Peak, Routt County, Colo. *Range.*—Arid portions of Great Basin. Recorded from Inyo County (Benson, Journ. Mamm., vol. 21, No. 3, p. 354, Aug. 13, 1940) and Mono County, Calif. (von Bloeker, Journ. Mamm., vol. 24, No. 3, p. 403, Aug. 17, 1943), and western Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 289, Aug. 14, 1941).

Myotis yumanensis yumanensis[35] (H. Allen)*

1864. *Vespertilio yumanensis* H. Allen, Smithsonian Misc. Coll., vol. 7, publ. 165, p. 58, June 1864.

1897. *Myotis yumanensis* Miller, North Amer. Fauna No. 13, p. 66, October 16, 1897.

1903. *Myotis californicus durangae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 612, Nov. 12, 1903. (Río Sestin, northwest Durango, México.)

Type Locality.—Old Fort Yuma, Imperial County, Calif., on right bank of Colorado River, opposite present town of Yuma, Ariz. *Range.*—Interior desert country of Great Basin, from western edges of Mohave and Colorado deserts and eastern edge of Sierra Nevada in California eastward through southern Nevada to western Texas, and south into Baja California and in México to State of Durango.

Myotis yumanensis sociabilis H. W. Grinnell*

1914. *Myotis yumanensis sociabilis* H. W. Grinnell, Univ. California Publ. Zool., vol. 12, No. 10, p. 318, Dec. 4, 1914.

Type Locality.—Old Fort Tejon, Tehachapi Mountains, Kern County, Calif. Altitude, 3,200 feet. *Range.*—From southeastern British Columbia and western Montana to eastern base of Cascade Mountains in central Washington and Oregon, thence southward through northwestern Nevada, northeastern California and a narrow belt in Sierra Nevada between ranges of *saturatus* and *yumanensis* to southern coastal area (for California, see also Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 86, Sept. 26, 1933). Also recorded from mountainous area in eastern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 21, Feb. 15, 1938).

Myotis yumanensis saturatus Miller†*

1897. *Myotis yumanensis saturatus* Miller, North Amer. Fauna No. 13, p. 68, Oct. 16, 1897.

Type Locality.—Hamilton, Skagit County, Wash. *Range.*—Humid northwest coast from Vancouver Island and on mainland from Horseshoe Lake to Dean Channel and Vancouver (Rand, Murrelet, vol. 23, p. 83, Feb. 15, 1943. See also Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 26, Jan. 24, 1947) in southern British Columbia; south to south-central California (San Luis Obispo County) and inland in the northern Sierra Nevada.

Myotis yumanensis lutosus Miller and G. M. Allen†*

1928. *Myotis yumanensis lutosus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 72, May 25, 1928.

Type Locality.—Pátzcuaro, Michoacán, México. *Range.*—Southern portion of Mexican highlands. Also recorded from Hidalgo, México (Davis, Journ. Mamm,. vol. 25, No. 4, p. 379, Dec. 12, 1944).

Myotis yumanensis oxalis Dalquest

1947. *Myotis yumanensis oxalis* Dalquest, Amer. Midl. Nat., vol. 38, No. 1, p. 228, July 1947.

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[35] Subspecies in California reviewed by Dalquest, Amer. Midl. Nat., vol. 38, No. 1, pp. 224–247, July 1947.

Type Locality.—Oxalis, San Joaquin Valley, Fresno County, Calif. *Range.*—Central San Joaquin Valley, lower Sacramento Valley, and area about San Francisco Bay, Calif.

Myotis yumanensis lambi Benson

1947. *Myotis yumanensis lambi* Benson, Proc. Biol. Soc. Washington, vol. 60, p. 45, May 19, 1947.

Type Locality.—San Ignacio, lat. 27°17′ N., Baja California, México. *Range.*—Known only from type locality, but probably present in suitable habitats in Baja California south of Sierra San Pedro Mártir.

Myotis austroriparius austroriparius (Rhoads)*

1897. *Vespertilio lucifugus austroriparius* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 227, May 22, 1897.

1928. *Myotis austroriparius* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 76, May 25, 1928.

Type Locality.—Tarpon Springs, Pinellas County, Fla. *Range.*—Florida Peninsula (see Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 221, November 22, 1943); northward to Thomas County, Ga. (Quay, Journ. Mamm., vol. 30, No. 1, p. 66, Feb. 14, 1949).

Myotis austroriparius gatesi Lowery*

1943. *Myotis austroriparius gatesi* Lowery, Occ. Pap. Mus. Zool. Louisiana State. Univ. No. 13, p. 219, Nov. 22, 1943.

Type Locality.—University Campus, near Baton Rouge, East Baton Rouge Parish, La. *Range.*—Louisiana (the type locality, and Provencal, Natchitoches Parish).

Myotis grisescens Howell†*

1909. *Myotis grisescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 22, p. 46, Mar. 10, 1909.

Type Locality.—Nickajack Cave, near Shellmound, Marion County, Tenn. *Range.*—limestone area from extreme southern Indiana and Illinois south to Tennessee, Georgia, northern Florida (Sherman, Journ. Mamm., vol. 15, No. 2, p. 156, May 15, 1934), and central Alabama westward to southwestern Missouri and northern Arkansas.

Myotis velifer velifer (J. A. Allen)*

1884. *Vespertilio albescens* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884. (Part.)

1890. *Vespertilio velifer* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 177, Dec. 10, 1890.

1897. *Myotis velifer* Miller, North Amer. Fauna No. 13, p. 56, Oct. 16, 1897.

1901. *Myotis californicus jaliscensis* Menegaux, Bull. Mus. Hist. Nat., Paris, ser. 1, vol. 7, p. 321. (Rock fissures in ravine near Lake Zacoalco, Jalisco, México).

Type Locality.—Santa Cruz del Valle, near Guadalajara, Jalisco, México. *Range.*—From highlands of Guatemala northward to western Arizona and southern California.

Myotis velifer incautus (J. A. Allen)*

1896. *Vespertilio incautus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 239, Nov. 21, 1896.

1928. *Myotis velifer incautus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 92, May 25, 1928.

Type Locality.—San Antonio, Bexar County, Tex. *Range.*—Open arid country from Texas to New Mexico northeastward to Kansas; south in México as far as Durango.

Myotis velifer peninsularis Miller*

1898. *Myotis peninsularis* Miller, Ann. Mag. Nat. Hist. ser. 7, vol. 2, p. 124, August 1898.

1928. *Myotis velifer peninsularis* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 93, May 25, 1928.

Type Locality.—San José del Cabo, Baja California, México. *Range.*—Southern end of Baja California.

Myotis fortidens Miller and G. M. Allen*

1902. *Pipistrellus cinnamomeus* Miller†, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 390, Sept. 12, 1902. (Monte Cristo, Tabasco, México. Preoccupied by *Vespertilio cinnamomeus* Wagner, 1855, a renaming of *Vespertilio ruber* É. Geoffroy-Saint-Hilaire=*Myotis ruber* (É. Geoffroy-Saint-Hilaire). Regarded as identical with *Myotis fortidens* by Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 25, p. 586, Jan. 20, 1950.)

1928. *Myotis lucifugus fortidens* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 54, May 25, 1928.

1950. *Myotis fortidens* Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 25, p. 586, Jan. 20, 1950.

Type Locality.—Teapa, Tabasco, México. *Range.*—Lower part of Tropical zone of Isthmus of Tehuantepec, northward on the west coast to southern Sinaloa and on east coast to southern Veracruz, México.

Myotis occultus Hollister†*

1909. *Myotis occultus* Hollister, Proc. Biol. Soc. Washington, vol. 22, p. 43, Mar. 10, 1909.

1909. *Myotis baileyi* Hollister†, Proc. Biol. Soc. Washington, vol. 22, p. 44, Mar. 10, 1909. (Base of White Mountains, near Ruidoso, Lincoln County, N. Mex. Altitude, 7,500 feet.)

Type Locality.—West side of Colorado River, 10 miles above Needles, San Bernardino County, Calif. *Range.*—From central and southwestern New Mexico, across southern half of Arizona southwestward on Mexican highlands as far at least as southern Sonora (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 25, p. 587, Jan. 20, 1950); and valley of Colorado River, from near Needles to near Yuma, Imperial County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 87, Sept. 26, 1933).

Myotis keenii keenii (Merriam)†*

1895. *Vespertilio subulatus keenii* Merriam, Amer. Nat., vol. 29, p. 860, September 1895.

1928. *Myotis keenii keenii* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 104, May 25, 1928.

Type Locality.—Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Humid northwest coast region from northern British Columbia and southeastern Alaska to northwestern Washington.

Myotis keenii septentrionalis (Trouessart)†*

1884. *Vespertilio subulatus* True, Proc. U. S. Nat. Mus., vol. 7 (App. ,Circ. 29), p. 603, Nov. 29, 1884. (Not of Say, 1823.)

1897. [*Vespertilio gryphus*] var. *septentrionalis* Trouessart, Catalogus Mammalium . . . , fasc. 1, p. 131.

1897. *Myotis subulatus* Miller, North Amer. Fauna No. 13, p. 75, Oct. 16, 1897. (Not of Say, 1823.)

1928. *Myotis keenii septentrionalis* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 105, May 25, 1928.

Type Locality.—Halifax, Nova Scotia, Canada. *Range.*—Eastern North America from Newfoundland, Nova Scotia, Quebec, and Ontario, south to Tennessee and Georgia; west to Manitoba, North Dakota, Nebraska, Missouri, and Arkansas (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 26, Jan. 24, 1947).

Myotis evotis evotis (H. Allen)†*

1864. *Vespertilio evotis* H. Allen, Smithsonian Misc. Coll., vol. 7, publ. 165, p. 48, June 1864.

1884. *Vespertilio evotis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1896. *Vespertilio chrysonotus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 240, Nov. 21, 1896. (Bitter Creek, Kinney Ranch, Sweetwater County, Wyo. For status see Dalquest, Proc. Biol. Soc. Washington, vol. 56, p. 2, Feb. 25, 1943. Regarded as valid by Hall, Mammals of Nevada, p. 136, July 1, 1946.)

1897. *Myotis evotis* Miller, North Amer. Fauna No. 13, p. 77, Oct. 16, 1897.

1909. *Myotis micronyx* Nelson and Goldman†, Proc. Biol. Soc. Washington, vol. 22, p. 28, Mar. 10, 1909. (Comondú, Baja California, México.)

1943. *Myotis evotis evotis* Dalquest, Proc. Biol. Soc. Washington, vol. 56, p. 2, Feb. 25, 1943.

Type Locality.—Monterey, Monterey County, Calif. (see Dalquest, loc. cit.). *Range.*—From Veracruz and Baja California, México, north to San Francisco, thence northeastward through northeastern California, eastern Oregon, Blue Mountains area of southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 153, Apr. 9, 1948), southern Idaho, southern and eastern Montana, north to Red Deer River (near Rumsey, Alberta); approaching southern border of Saskatchewan, western North and South Dakota, western Nebraska, central and western Colorado, western New Mexico, and western Texas (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 27, Jan. 24, 1947).

Myotis evotis pacificus Dalquest*

1943. *Myotis evotis pacificus* Dalquest, Proc. Biol. Soc. Washington, vol. 56, p. 2, Feb. 25, 1943.

Type Locality.—Three and a half miles east and five miles north of Yacolt, Clark County, Wash. Altitude, 500 feet. *Range.*—Forested areas of southern

British Columbia, north on coast as far as head of Dean Channel (Cranbrook, Horseshoe Lake near Powell River, Kimsquit, Kingcome Inlet, Okanagan Landing, Shuswap, Vernon, Victoria); Rocky Mountains (Jasper and Waterton Lakes National Parks, where *pacificus* is somewhat intermediate with *evotis*) in western Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 27, Jan. 24, 1947); western Washington, western Oregon, and northwestern coastal area of California.

Myotis milleri Elliot*

1903. *Myotis milleri* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3 (April), p. 172, May 7, 1903.

Type Locality.—La Grulla, Sierra San Pedro Mártir, Baja California, México. Altitude, 8,000 feet. *Range.*—Sierra San Pedro Mártir, Baja California, México.

Myotis thysanodes thysanodes Miller†*

1897. *Myotis thysanodes* Miller, North Amer. Fauna No. 13, p. 80, Oct. 16, 1897.

Type Locality.—Old Fort Tejon, Tehachapi Mountains, Kern County, Calif. Altitude, 3,200 feet. *Range.*—From Okanagan Valley, British Columbia (Maslin, Journ. Mamm., vol. 19, No. 3, p. 373, Aug. 18, 1938), southeastern Washington, northwestern Oregon (Walker, Murrelet, vol. 23, p. 62, Aug. 14, 1942), central California, southern Nevada, Arizona, New Mexico, and Trans-Pecos in Texas (Davis, Texas Fish and Game, vol. 3, No. 2, p. 13, January 1945) southward into northern and central México; exact limits of range not known. Also recorded from Custer County, South Dakota (Bole, Journ. Mamm., vol. 16, No. 2, p. 147, May 15, 1935). In California recorded south to Dulzura, San Diego County; northwest in Coast Ranges as far as Stonewall Creek, near Soledad, Monterey County; and north along western flank of Sierra Nevada as far as Limekiln, Middle Fork of American River, Eldorado County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 4, p. 88, Sept. 26, 1933).

Myotis thysanodes aztecus Miller and G. M. Allen

1928. *Myotis thysanodes aztecus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 128, May 25, 1928.

Type Locality.—San Antonio, Oaxaca, México. *Range.*—Southern México (Oaxaca).

Myotis sodalis Miller and G. M. Allen*

1928. *Myotis sodalis* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 130, May 25, 1928.

Type Locality.—Wyandotte Cave, Crawford County, Ind. *Range.*—Eastern United States from central Mississippi Valley [Arkansas and Missouri] and northern Alabama to western part of New England.

Myotis volans volans (H. Allen)†*

1866. *V*[*espertilio*] *volans* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 282.

1909. *Myotis capitaneus* Nelson and Goldman†, Proc. Biol. Soc. Washington, vol. 22, p. 28, Mar. 10, 1909. (San Jorge, 30 miles southwest of Comondú, Baja California, México.)

1914. *Myotis volans* Goldman, Proc. Biol. Soc. Washington, vol. 27, p. 102, May 11, 1914.

Type Locality.—Cape San Lucas, Baja California, México. *Range.*—So far as known the typical form is confined to Baja California.

Myotis volans longicrus (True)†*

1886. *Vespertilio longicrus* True, Science, vol. 8, p. 588, Dec. 24, 1886.

1911. *Myotis altifrons* Hollister†, Smithsonian Misc. Coll. vol. 56, No. 26, p. 3, Dec. 5, 1911. (Henry House, Alberta, Canada.)

1928. *Myotis volans longicrus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 140, May 25, 1928.

1938. *Myotis ruddi* Silliman and von Bloeker, Proc. Biol. Soc. Washington, vol. 51, p. 167, Aug. 23, 1938. (Lime Kiln Creek, southwestern Santa Lucia Mountains, Monterey County, Calif.; altitude, 250 feet. Regarded as identical with *longicrus* by Benson, Journ. Mamm., vol. 30, No. 1, p. 48, Feb. 14, 1949.)

Type Locality.—Vicinity of Puget Sound, Wash. *Range.*—Pacific coast region from Monterey, Calif., north to Admiralty Island, Alaska, and south end of Atlin Lake, northwestern British Columbia, east to Henry House east of Jasper Park, Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 28, Jan. 24, 1947).

Myotis volans interior Miller†*

1914. *Myotis longicrus interior* Miller, Proc. Biol. Soc. Washington, vol. 27, p. 211, Oct. 31, 1914.

1928. *Myotis volans interior* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 142, May 25, 1928.

Type Locality.—Five miles south of Twining, Taos County, N. Mex. Altitude, 11,300 feet. *Range.*—More arid parts of the species' range, from Blue Mountains area of southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 155, Apr. 9, 1948) and eastern Oregon to Wyoming, south to Colorado, New Mexico, northern Chihuahua and southern California. Also recorded from Custer County, S. D. (Moulthrop, Journ. Mamm., vol. 17, No. 4, p. 413, Nov. 16, 1936), Sioux County, northwestern Nebraska (Webb and Jones, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 21, p. 275, May 31, 1952), and Brewster and Jeff Davis Counties in southwestern Texas (Taylor and Davis, Texas Game, Fish, and Oyster Comm. Bull. 27, p. 15, August 1947).

Myotis volans amotus Miller†*

1914. *Myotis longicrus amotus* Miller, Proc. Biol. Soc. Washington, vol. 27, p. 212, Oct. 31, 1914.

1928. *Myotis volans amotus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 145, May 25, 1928.

Type Locality.—Cofre de Perote, Veracruz, México. Altitude, 12,500 feet. *Range.*—Southern México, including the States of Veracruz and Jalisco; limits of range as yet undetermined.

Myotis californicus californicus (Audubon and Bachman)*

1842. *Vespertilio californicus* Audubon and Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 2, p. 285.

1884. *Vespertilio nitidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1897. *Myotis californicus* Miller, North Amer. Fauna No. 13, p. 69, Oct. 16, 1897.

1914. *Myotis californicus quercinus* H. W. Grinnell, Univ. California Publ. Zool., vol. 12, No. 10, p. 317, Dec. 4, 1914. (Seven Oaks, San Bernardino Mountains, San Bernardino County, Calif. Altitude, 5,000 feet.)

Type Locality.—California. (The original specimen, on which the description was based, was received from "California." It is probably not now in existence. Type locality by subsequent restriction, Monterey, Monterey County, Calif. See Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 153, May 25, 1928.) *Range.*—From about latitude of Tropic of Cancer in continental México, and Cape San Lucas in Baja California northward along Pacific coast to region of San Francisco Bay and in interior to northern Sierra Nevada, eastern Oregon and eastern Washington north to Similkameen River Valley in southern British Columbia, eastward to western Texas, central New Mexico, west-central Colorado, and possibly northern Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 290, Aug. 14, 1941).

Myotis californicus caurinus Miller†*

1897. *Myotis californicus caurinus* Miller, North Amer. Fauna No. 13, p. 72, Oct. 16, 1897.

Type Locality.—Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Humid area of Pacific coast from extreme south of Alaskan archipelago, along coastal areas of British Columbia, Washington, Oregon, and northwestern California, to vicinity of San Francisco Bay.

Myotis californicus stephensi Dalquest*

1900. *Myotis californicus pallidus* Stephens†, Proc. Biol. Soc. Washington, vol. 13, p. 153, June 13, 1900. (Not *K[erivoula] pallida* Blyth, Catalogue of the Mammalia in the Museum [of the] Asiatic Society, p. 34, 1863.)

1946. *Myotis californicus stephensi* Dalquest, Proc. Biol. Soc. Washington, vol. 59, p. 67, Mar. 11, 1946.

Type Locality.—Vallecito, eastern San Diego County, Calif. (The names *pallidus* and *stephensi* have the same type locality but are based on different type specimens.) *Range.*—Arid interior of southwestern United States; northward to northern Nevada (Hall, Mammals of Nevada, p. 142, July 1, 1946) and central Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 290, Aug. 14, 1942); also recorded from low arid desert region of northwestern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 23, Feb. 15, 1938).

Myotis californicus mexicanus (Saussure)*

1860. *V[espertilio] mexicanus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 282, July 1860.

1897. *Myotis californicus mexicanus* Miller, North Amer. Fauna No. 13, p. 73, Oct. 16, 1897.

Type Locality.—Exact locality unknown: probably somewhere in Veracruz, Puebla, or Oaxaca, México. *Range.*—Southern México, from Oaxaca north to about Tropic of Cancer.

Myotis subulatus subulatus (Say)*

1823. *V[espertilio] subulatus* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains . . . , vol. 2, p. 65.

1886. *Vespertilio ciliolabrum* Merriam†, Proc. Biol. Soc. Washington, vol. 4, p. 2, Dec. 17, 1886. (Near Banner, Trego County, Kan., in bluff on Hackberry Creek, about one mile from Castle Rock.)

1910. *Myotis subulatus* Warren, The mammals of Colorado, . . . , p. 275. (Not of Miller, 1897.)

1928. *Myotis subulatus subulatus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 168, May 25, 1928.

Type Locality.—Arkansas River, near La Junta, Otero County, Colo. *Range.*—Arid plains and eastern Rocky Mountain region from Trans-Pecos region of Texas (Davis, Journ. Mamm., vol. 25, No. 2, p. 201, May 26, 1944), Kansas, northwestern Nebraska (Webb and Jones, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 21, p. 274, May 31, 1952), southeastern Colorado north to Montana and southeastern Alberta.

Myotis subulatus melanorhinus (Merriam)†*

1890. *Vespertilio melanorhinus* Merriam, North Amer. Fauna No. 3, p. 46, Sept. 11, 1890.

1894. *V[espertilio] nitidus henshawii* H. Allen†, U. S. Nat. Mus. Bull. 43, p. 103, (1893), Mar. 14, 1894. (Near Wingate, McKinley County, N. Mex.)

1903. *Myotis orinomus* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, p. 228, (June) August 15, 1903. (La Grulla, Sierra San Pedro Mártir, Baja California, México. Altitude, 8,000 feet.)

1928. *Myotis subulatus melanorhinus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 169, May 25, 1928.

Type Locality.—Little Spring, north base of San Francisco Mountain, Coconino County, Ariz. Altitude, 8,250 feet. *Range.*—From southern Colorado, central and southern Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 291, Aug. 14, 1941) and Nevada, southwestward across New Mexico, Arizona, and northern México to Pacific coast of southern California and northern Baja California, and northwestward into Oregon, Idaho, eastern Washington and southern British Columbia (Cowan, Canadian Field-Nat., vol. 50, p. 146, Dec. 3, 1936). Probably does not include much if any part of Texas (see Davis, Journ. Mamm., vol. 25, No. 2, p. 201, May 26, 1944).

Myotis subulatus leibii (Audubon and Bachman)*

1842. *Vespertilio leibii* Audubon and Bachman, Journ. Acad. Nat. Sci. Philadelphia, ser. 1, vol. 8, p. 284, 1842.

1913. *Myotis winnemana* Nelson†, Proc. Biol. Soc. Washington, vol. 26, p. 183, Aug. 8, 1913. (Plummers Island, Montgomery County, Md., in Potomac River, 10 miles above Washington, D. C.)

1928. *Myotis subulatus leibii* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 171, May 25, 1928.

Type Locality.—Erie County, Ohio. *Range.*—From northwestern Rutherford County, western North Carolina (Adams, Journ. Mamm., vol. 31, No. 1, p. 97, Feb. 21, 1950), Kentucky, West Virginia, northwestern Virginia (Johnson, Journ. Mamm., vol. 31, No. 2, p. 197, May 25, 1950), and Maryland north to southern

Ontario and southwestern Quebec, Canada (Hitchcock, Journ. Mamm., vol. 26, No. 4, p. 433, Feb. 12, 1946).

Myotis nigricans nigricans (Schinz) *

1821. *Vesp*[*ertilio*] *nigricans* Schinz, Das Thierreich . . . , vol. 1, p. 179.

1826. *V*[*espertilio*] *nigricans* Wied-Neuwied, Beiträge zur Naturgeschichte von Brasilien, vol. 2, p. 266.

1866. *Vespertilio concinnus* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 280. (El Salvador.)

1866. *Vespertilio exiguus* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 281. (Aspinwall=Colón, Panamá.)

1884. *Vespertilio nigricans* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884. (Part.)

1904. *Myotis chiriquensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 77, Feb. 29, 1904. (Boquerón, Chiriquí, Panamá.)

1924. *Myotis nigricans nigricans* Miller, U. S. Nat. Mus. Bull. 128, p. 72, Apr. 29, 1924.

Type Locality.—Fazenda de Aga, near Rio Iritiba, Espírito Santo, southeastern Brazil. *Range.*—Central and South America from Guatemala to southern Brazil and from coast to coast; also recorded from Prusia, Chiapas, México (Hooper, Journ. Mamm., vol. 28, No. 1, p. 43, Feb. 17, 1947), Stann Creek Valley, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 558, July 10, 1951), and Grenada, Lesser Antilles.

Myotis nigricans extremus Miller and G. M. Allen†*

1928. *Myotis nigricans extremus* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 181, May 25, 1928.

Type Locality.—Huehuetán, Chiapas, México. Altitude, 300 feet. *Range.*—Tropical zone in southern México (Chiapas, Campeche, and Yucatán).

Myotis nigricans dominicensis Miller†*

1902. *Myotis dominicensis* Miller, Proc. Biol. Soc. Washington, vol. 15, p. 243, Dec. 16, 1902.

1928. *Myotis nigricans dominicensis* Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, p. 183, May 25, 1928.

Type Locality.—Dominica, Lesser Antilles. *Range.*—Dominica, Lesser Antilles.

Myotis albescens (É. Geoffroy-Saint-Hilaire) *

1806, *Vesp*[*ertilio*] *albescens* É. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, vol. 8, p. 204, 1806.

1900. *Myotis albescens* Thomas, Ann. Mus. Civ. Storia Nat. Genova, vol. 40, p. 546, July 4, 1900.

Type Locality.—Paraguay. *Range.*—Warmer parts of America from Costa Rica to Venezuela, Paraguay, and Patagonia. Limits of range imperfectly known.

Myotis argentatus Dalquest and Hall

1947. *Myotis argentatus* Dalquest and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, p. 239, Dec. 10, 1947.

Type Locality.—Fourteen kilometers southwest of Coatzacoalcos, Veracruz, México. Altitude, 100 feet. *Range.*—Known from type locality only.

Genus PIZONYX[36] Miller

1906. *Pizonyx* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906. (Type, *Myotis vivesi* Menegaux.)

Pizonyx vivesi (Menegaux) *

1901. *Myotis vivesi* Menegaux, Bull. Mus. Hist. Nat., Paris, vol. 7, p. 323.
1906. *Pizonyx vivesi* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906.

Type Locality.—"Îlot du Cardonal ou Islo, parti de l'Archipel Salsi puedes," Gulf of California, Baja California, México. *Range.*—Islands and coasts of Gulf of California.

Genus LASIONYCTERIS[37] Peters

1866. *Lasionycteris* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 648. (Type, *Vespertilio noctivagans* Le Conte.)

Lasionycteris noctivagans (Le Conte) * (silver-haired bat)

1831. *V [espertilio] noctivagans* Le Conte, in McMurtrie, The animal kingdom . . . by the Baron Cuvier, vol. 1, App., p. 431.
1884. *Vesperugo noctivagans* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 602, Nov. 29, 1884.
1894. *Lasionycteris noctivagans* H. Allen, U. S. Nat. Mus. Bull. 43 (1893), p. 105, Mar. 14, 1894.

Type Locality.—Eastern United States. *Range.*—North America north of México, from Atlantic to Pacific; probably not breeding south of Transition Zone.

Genus PIPISTRELLUS[38] Kaup

1829. *Pipistrellus* Kaup, Skizzirte Entwickelungs-Geschichte und natürliches System der Europäischen Thierwelt, pt. 1, p. 98 (Type, *Vespertilio pipistrellus* Schreber.)

Pipistrellus hesperus hesperus (H. Allen) †*

1864. *Scotophilus hesperus* H. Allen, Smithsonian Misc. Coll., vol. 7, publ. 165, p. 43, June 1864.
1884. *Vesperugo hesperus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.
1897. *Pipistrellus hesperus* Miller, North Amer. Fauna No. 13, p. 88, Oct. 16, 1897.
1936. *Pipistrellus hesperus hesperus* Hatfield, Journ. Mamm., vol. 17, No. 3, p. 257, August 1936.

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[36] Revised by Miller and G. M. Allen, U. S. Nat. Mus. Bull. 144, pp. 209–214, May 25, 1928.

[37] Revised by Miller, North Amer. Fauna No. 13, pp. 85–87, Oct. 16, 1897.

[38] Revised by Miller, North Amer. Fauna No. 13, pp. 87–95, Oct. 16, 1897. Races of *Pipistrellus hesperus* revised by Hatfield, Journ. Mamm., vol. 17, No. 3, pp. 257–262, May 18, 1936. Synopsis published by Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, pp. 591–602, Jan. 20, 1950.

Type Locality.—Old Fort Yuma, Imperial County, Calif., on right bank of Colorado River, opposite present town of Yuma, Ariz. *Range.*—Intermontane region of United States from south-central Washington south to Cataviña in northeastern Baja California, and from southeastern California eastward to southern Utah and northward in Utah to Tooele County (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 51, Aug. 10, 1952).

Pipistrellus hesperus merriami (Dobson)†*

1886. *Vesperugo merriami* Dobson, Ann. Mag. Nat. Hist., ser. 5, vol. 18, p. 24, August 1886.

1913. *Pipistrellus hesperus merriami* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 279, Aug. 28, 1913.

Type Locality.—Red Bluff, Tehama County, Calif. (not Locust Grove, Lewis County, N. Y., as supposed by Dobson, op. cit., p. 125). *Range.*—California west of Sierra Nevada; Sacramento Valley, San Joaquin Valley, and Coast Range from San Francisco Bay south to San Diego County (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, p. 597, Jan. 20, 1950).

Pipistrellus hesperus australis Miller†*

1897. *Pipistrellus hesperus australis* Miller, North Amer. Fauna No. 13, p. 90, Oct. 16, 1897.

1904. *Pipistrellus hesperus apus* Elliot, Field Colomb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 269, Mar. 7, 1904. (Providencia Mines, Sonora, México. Regarded by Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 25, Feb. 15, 1938, as a synonym of *Pipistrellus hesperus merriami.*)

Type Locality.—Barranca Ibarra, Jalisco, México. *Range.*—Central Arizona south to Jalisco, and including southern half of Baja California (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, p. 597, Jan. 20, 1950)

Pipistrellus hesperus potosinus Dalquest*

1951. *Pipistrellus hesperus potosinus* Dalquest, Proc. Biol. Soc. Washington, vol. 64, p. 105, Aug. 24, 1951.

Type Locality.—Presa de Guadalupe, San Luis Potosí, México. *Range.*—Known only from western and central parts of San Luis Potosí, but probably ranging over eastern part of Mexican Plateau.

Pipistrellus hesperus maximus Hatfield*

1936. *Pipistrellus hesperus maximus* Hatfield, Journ. Mamm., vol. 17, No. 3, p. 261, Aug. 17, 1936.

Type Locality.—Dog Spring, Hidalgo County, N. Mex. *Range.*—Southern New Mexico, western Texas and probably adjoining parts of México (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, p. 598, Jan. 20, 1950).

Pipistrellus hesperus santarosae Hatfield*

1936. *Pipistrellus hesperus santarosae* Hatfield, Journ. Mamm., vol. 17, No. 3, p. 261, Aug. 17, 1936.

Type Locality.—Santa Rosa, Guadalupe County, N. Mex. *Range.*—In so far as known, northern New Mexico and western Colorado.

Pipistrellus subflavus subflavus (F. Cuvier)*

1832. *V[espertilio] subflavus* F. Cuvier, Nouv. Ann. Mus. Hist. Nat., Paris, vol. 1, p. 17.

1884. *Vesperugo georgianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1897. *Pipistrellus subflavus* Miller, North Amer. Fauna No. 13, p. 90, Oct. 16, 1897.

Type Locality.—Eastern United States, probably Georgia. *Range.*—From approximately lat. 40° N. in Pennsylvania and Kansas southward to central Florida and at least to extreme southern Texas; from Atlantic Coast westward to south-central Kansas and Val Verde County, Tex. (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, p. 599, Jan. 20, 1950). Recorded also from Cass and Sarpy Counties in eastern Nebraska (Webb and Jones, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 21, p. 276, May 31, 1952).

Pipistrellus subflavus obscurus Miller†*

1897. *Pipistrellus subflavus obscurus* Miller, North Amer. Fauna No. 13, p. 93, Oct. 16, 1897.

Type Locality.—Lake George, Warren County, N. Y. *Range.*—From southern Quebec and southern Ontario south to southern Ohio and West Virginia; from Atlantic Coast west into Wisconsin (Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, p. 600, Jan. 20, 1950).

Pipistrellus subflavus veraecrucis (Ward)

1891. *Vesperugo veraecrucis* Ward, Amer. Nat., vol. 25, p. 745, Aug. 1891.

1897. *Pipistrellus veraecrucis* Miller, North Amer. Fauna No. 13, p. 93, Oct. 16, 1897.

1950. *Pipistrellus subflavus veracrucis* [sic] Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 26, p. 601, Jan. 20, 1950.

Type Locality.—Las Vigas, Canton of Jalapa, Veracruz, México. Altitude, 8,500 feet. *Range.*—From type locality southward at least to Jilamo Farm, Tela District, Honduras (Hall and Dalquest, loc. cit.).

Genus EPTESICUS[39] Rafinesque

1820. *Eptesicus* Rafinesque, Annals of nature . . . , p. 2. (Type, *Eptesicus melanops* Rafinesque=*Vespertilio fuscus* Palisot de Beauvois.)

Eptesicus fuscus fuscus (Palisot de Beauvois)* (big brown bat)

1796. *Vespertilio fuscus* Palisot de Beauvois, Catalogue raisonné du muséum de Mr. C. W. Peale, Philadelphia, p. 18. (English edition by Peale and Palisot de Beauvois, p. 14.)

1885. *Vesperugo serotinus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884. (Part.)

1894. *Adelonycteris fuscus* H. Allen, U. S. Nat. Mus. Bull. 43 (1893), p. 112, Mar. 14, 1894.

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[39] Revised (under name *Vespertilio*) by Miller, North Amer. Fauna No. 13, pp. 95–104, Oct. 16, 1897. Races of *Eptesicus fuscus* revised by G. M. Allen, Canadian Field-Nat., vol. 47, pp. 31–32, February 1932. Western races revised by Engels, Amer. Midl. Nat., vol. 17, No. 3, pp. 653–660, May 1936.

1900. *Eptesicus fuscus* Méhely, Magyarország denevéreinek monographiája (Monographia Chiropterorum Hungariae), pp. 206, 338.

Type Locality.—Philadelphia, Pa. *Range.*—Eastern North America, west approximately to long. 102° W., from central Quebec, Ontario, and Manitoba south to northern Florida and Nuevo León, México (Davis, Journ. Mamm., vol. 25, No. 4, p. 379, Dec. 12, 1944).

Eptesicus fuscus osceola Rhoads*

1902. *Eptesicus fuscus osceola* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 53, 1901, p. 618, Feb. 6, 1902.

Type Locality.—Tarpon Springs, Pinellas County, Fla. *Range.*—Southern Florida.

Eptesicus fuscus pallidus Young†*

1908. *Eptesicus pallidus* Young, Proc. Acad. Nat. Sci. Philadelphia, vol. 60, p. 408, Oct. 14, 1908.

1912. *Eptesicus fuscus pallidus* Miller, U. S. Nat. Mus. Bull. 79, p. 62, Dec. 31, 1912.

Type Locality.—Boulder, Boulder County, Colo. *Range.*—Great Basin and Rocky Mountain regions, from Saskatchewan and Alberta south through the United States to northern México, reaching the Pacific Coast in northern Baja California; eastward to approximately long. 97°30′ W. in Kansas (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 71, Aug. 25, 1952).

Eptesicus fuscus bernardinus Rhoads*

1902. *Eptesicus fuscus bernardinus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 53, 1901, p. 619, Feb. 6, 1902.

1904. *Eptesicus fuscus melanopterus* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 590, Oct. 18, 1904. (Mount Tallac, Eldorado County, Calif. Not *Vesperus melanopterus* Jentink, July 15, 1904.)

Type Locality.—Near San Bernardino, San Bernardino County, Calif. *Range.*—Pacific Coastal region, mainly west of Cascade–Sierran Divide, from southern British Columbia south to southern California.

Eptesicus fuscus miradorensis (H. Allen)*

1866. *S[cotophilus] miradorensis* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 287.

1897. *Vespertilio fuscus miradorensis* Miller, North Amer. Fauna No. 13, p. 99, Oct. 16, 1897.

1912. *Eptesicus fuscus miradorensis* Miller, U. S. Nat. Mus. Bull. 79, p. 62, Dec. 31, 1912.

Type Locality.—Mirador, Veracruz, México. *Range.*—From Tlaxcala and central Veracruz (Davis, Journ. Mamm., vol. 25, No. 4, p. 379, Feb. 12, 1946) south to Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 215, Apr. 26, 1920).

Eptesicus fuscus peninsulae (Thomas)*

1898. *Vespertilio fuscus peninsulae* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 43, January 1898.

1912. *Eptesicus fuscus peninsulae* Miller, U. S. Nat. Mus. Bull. 79, p. 63, Dec. 31, 1912.

Type Locality.—Sierra Laguna, Baja California, México. *Range.*—Arid tip of the Baja California Peninsula.

Eptesicus fuscus bahamensis (Miller)†*

1897. *Vespertilio fuscus bahamensis* Miller, North Amer. Fauna No. 13, p. 101, Oct. 16, 1897.

1912. *Eptesicus bahamensis* Miller, U. S. Nat. Mus. Bull. 79, p. 61, Dec. 31, 1912.

1945. *Eptesicus fuscus bahamensis* Shamel, Proc. Biol. Soc. Washington, vol. 58, p. 108, July 18, 1945.

Type Locality.—Nassau, New Providence, Bahama Islands. *Range.*—Bahama Islands.

Eptesicus fuscus dutertreus (P. Gervais)*

1837. *Vespertilio dutertreus* P. Gervais, Ann. Sci. Nat., Paris, ser. 2 (Zool.), vol. 8, p. 61, July 1837.

1839. *Scotophilus cubensis* Gray, Ann. Nat. Hist., vol. 4, p. 7, September 1839.

1912. *Eptesicus cubensis* Miller, U. S. Nat. Mus. Bull. 79, p. 62, Dec. 31, 1912.

1945. *Eptesicus fuscus cubensis* Shamel, Proc. Biol. Soc. Washington, vol. 58, p. 108, July 18, 1945.

Type Locality.—Cuba. *Range.*—Cuba. Also recorded from the Bahama Islands (G. M. Allen and Sanborn, Journ. Mamm., vol. 18, No. 2, p. 227, May 12, 1937).

Eptesicus fuscus hispaniolae Miller†*

1918. *Eptesicus hispaniolae* Miller, Proc. Biol. Soc. Washington, vol. 31, p. 39, May 16, 1918.

1945. *Eptesicus fuscus hispaniolae* Shamel, Proc. Biol. Soc. Washington, vol. 58, p. 108, July 18, 1945.

Type Locality.—Constanza, Dominican Republic. *Range.*—Haiti and Dominican Republic.

Eptesicus fuscus wetmorei Jackson†*

1916. *Eptesicus wetmorei* Jackson, Proc. Biol. Soc. Washington, vol. 29, p. 37, Feb. 24, 1916.

1945. *Eptesicus fuscus wetmorei* Shamel, Proc. Biol. Soc. Washington, vol. 58, p. 108, July 18, 1945.

Type Locality.—Maricao, Puerto Rico. *Range.*—Puerto Rico.

Eptesicus lynni Shamel†*

1945. *Eptesicus lynni* Shamel, Proc. Biol. Soc. Washington, vol. 58, p. 107, July 18, 1945.

Type Locality.—Cave 3 miles east of Montego Bay, Jamaica. *Range.*—Jamaica.

Eptesicus propinquus (Peters)*

1872. *Vesperus propinquus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1872, p. 262.

1884. *Vesperugo propinquus* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 602, Nov. 29, 1884.

1897. *Adelonycteris gaumeri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 231, Sept. 28, 1897. (Izamal, Yucatán, México. See Osgood, Proc. Biol. Soc. Washington, vol. 27, p. 101, May 11, 1914.)

1914. *Eptesicus propinquus* Osgood, Proc. Biol. Soc. Washington, vol. 27, p. 101, May 11, 1914.

Type Locality.—Santa Isabel, Petén, Guatemala. *Range.*—From Veracruz (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 141, May 29, 1942) and Cuautla, Morelos, México (Martinez and Villa, Anales Inst. Biol. Univ. Nac. México, vol. 9, Nos. 3–4, p. 354, 1940) south to Panamá (G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 228, Aug. 12, 1935).

Eptesicus albigularis (Peters)

1872. *Vesperus* (*Marsipolaemus*) *albigularis* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1872, p. 260.

1942. *Eptesicus albigularis* Goodwin, Amer. Mus. Nov. No. 1199, p. 1, Oct. 9, 1942.

Type Locality.—"México." *Range.*—Recorded also at Comayaguela, Honduras (Goodwin, loc. cit.).

Eptesicus chiriquinus Thomas

1920. *Eptesicus chiriquinus* Thomas, Ann. Mag. Nat. Hist., ser. 9, vol. 5, p. 362, April 1920.

Type Locality.—Bóquete, Chiriquí, Panamá.

Genus LASIURUS[40] Gray

1797. *Nycteris* B[orkhause]n, Der Zoologe (Compendiose Bibliothek gemeinnützigsten Kenntnisse für alle Stände, pt. 21), Heft 4—7, p. 66. (Type, *Vespertilio borealis* Müller. Not *Nycteris* G. Cuvier and É. Geoffroy-Saint-Hilaire, 1795; type *Vespertilio hispidus* Schreber, 1774. Under "suspension of rules" (Congr. Internat. Zool., Monaco, 1913, p. 890, 1914; Proc. Biol. Soc. Washington, vol. 39, p. 88, July 30, 1926) the International Commission on Zoological Nomenclature (Smithsonian Misc. Coll., vol. 73, No. 6, p. 18, June 8, 1929) has set aside the name *Nycteris* Borkhausen, 1797, in favor of *Nycteris* É. Geoffroy-Saint Hilaire, 1803 (not Nycteris G. Cuvier and É. Geoffroy-Saint-Hilaire, 1795, a nomen nudum), type, *Nycteris hispidus* É. Geoffroy-Saint-Hilaire. This decision makes *Lasiurus* Gray once more apply to the American hairy-tailed bats.)

1831. *Lasiurus* Gray, Zool. Misc., No. 1, p. 38. (Based on "the hairy-tailed species of America." Type, *Vespertilio borealis* Müller.)

Lasiurus borealis borealis (Müller)* (red bat)

1776. *Vespertilio borealis* Müller, Des Ritters Carl von Linné . . . vollständiges Natursystem nach der zwölften lateinischen Ausgabe . . . , Suppl. (Mammalia), p. 20.

1777. [*Vespertilio*] *noveboracensis* Erxleben, Systema regni animalis . . . , p. 155. (Based on the New York bat of Pennant.)

1884. *Atalapha noveboracensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

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[40] Revised by Miller, North Amer. Fauna No. 13, pp. 105–115, Oct. 16, 1897.

1897. *Lasiurus borealis* Miller, North Amer. Fauna No. 13, p. 105, Oct. 16, 1897.

1930. *Myotis quebecensis* Yourans,† Naturaliste Canadien, vol. 57 (ser. 3, vol. 1), p. 65, March 1930. (Anse-à-Wolfe, Quebec, Canada. For status see note signed "La Direction" (=Georges Maheux), Naturaliste Canadien, vol. 57 (ser. 3, vol. 1) pp. 185–186, October 1930.)

Type Locality.—New York. *Range.*—Eastern North America from Florida (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 107, 1937) west to Texas east of essentially treeless plains, and north to North Dakota east of Missouri River (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 209, Jan. 8, 1927), southern Alberta, central Saskatchewan, southern Manitoba, Ontario south of Lake Nipissing, southern Quebec, and New Brunswick, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 31, Jan. 24, 1947). Casual records for Colorado (Warren, The mammals of Colorado, . . . , p. 268, 1910) and Bermuda (G. M. Allen, Journ. Mamm., vol. 4, No. 1, p. 61, Feb. 9, 1923).

Lasiurus borealis seminolus (Rhoads)*

1895. *Atalapha borealis seminola* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 32, Mar. 19, 1895. (Regarded as distinct species by Barkalow, Journ. Mamm., vol. 29, No. 4, pp. 415–416, May 14, 1948; and Coleman, Journ. Mamm., vol. 31, No. 2, p. 190, May 25, 1950.)

1896. *Atalapha borealis peninsularis* [Coues], The Nation, vol. 62, p. 404, May 21, 1896. (Florida. Described by Cory, Hunting, and Fishing in Florida, . . . , pp. 115–116, 1896.)

1897. *Lasiurus borealis seminolus* Miller, North Amer. Fauna No. 13, p. 109, October 16, 1897.

Type Locality.—Tarpon Springs, Pinellas County, Fla. *Range.*—Lower Austral and Tropical Zones from South Carolina to Florida, and west to southern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 223, Nov. 22, 1943) and Brownsville, Texas (Miller, North Amer. Fauna No. 13, p. 109, Oct. 16, 1897). Also recorded from Berks County, Pa. (Poole, Journ. Mamm., vol. 13, No. 2, p. 162, May 11, 1932); and Lancaster County, Pa. (Poole, Journ. Mamm., vol. 30, No. 1, p. 80, Feb. 14, 1949).

Lasiurus borealis teliotis (H. Allen)†*

1891. *Atalapha teliotis* H. Allen, Proc. Amer. Philos. Soc., vol. 29, p. 5, Apr. 10, 1891.

1897. *Lasiurus borealis teliotis* Miller, North Amer. Fauna No. 13, p. 110, Oct. 16, 1897.

Type Locality.—Unknown, probably some part of California. *Range.*—Western North America, from Skagit, British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 31, Jan. 24, 1947), south to Comondú, Baja California, and Sonora, México (Burt, Mus. Zool. Univ. Michigan Misc. Publ. 39, p. 26, Feb. 15, 1938), and from Pacific Coast east to Carbon County, Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 292, Aug. 14, 1931) and southeastern Arizona (Hargrave, Journ. Mamm., vol. 25, No. 4, p. 414, Dec. 12, 1944).

Lasiurus borealis ornatus Hall†*

1951. *Lasiurus borealis ornatus* Hall, Univ. Kansas Publ., Mus. Nat. Hist., vol. 5, No. 14, p. 226, Dec. 15, 1951.

Type Locality.—Penuela, Veracruz, México. *Range.*—Approximately the southern two-fifths of México; south to La Flor Archaga, Tegucigalpa, Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 142, May 29, 1942).

Lasiurus borealis frantzii (Peters)*

1871. *Atalapha frantzii* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1870, p. 908, 1871.

1932. *Lasiurus borealis frantzii* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 148, Sept. 9, 1932.

Type Locality.—Costa Rica (no exact locality). *Range.*—Western Panamá (Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 148, Sept. 9, 1932) and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 335, Dec. 31, 1946).

Lasiurus pfeifferi (Gundlach)*

1861. *Atalapha pfeifferi* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1861, p. 152.

1931. *Lasiurus pfeifferi* Miller, Journ. Mamm., vol. 12, No. 4, p. 409, Nov. 11, 1931.

Type Locality.—Cuba. *Range.*—Cuba; Bahamas?

Lasiurus degelidus Miller†*

1931. *Lasiurus degelidus* Miller, Journ. Mamm., vol. 12, No. 4, p. 410, Nov. 11, 1931.

Type Locality.—Sutton's, District of Vere, Jamaica. *Range.*—Jamaica.

Lasiurus minor Miller†*

1931. *Lasiurus minor* Miller, Journ. Mamm., vol. 12, No. 4, p. 410, Nov. 11, 1931.

Type Locality.—"Voute l' Église," a cave situated near the Jacmel road a few kilometers north of Trouin, Haiti. *Range.*—Probably the entire island of Hispaniola. Also recorded from Cat Island, Bahamas (G. M. Allen and Sanborn, Journ. Mamm., vol. 18, No. 2, p. 228, May 12, 1937).

Lasiurus cinereus cinereus (Palisot de Beauvois)*

1796. *Vespertilio cinereus* (misspelled *linereus*) Palisot de Beauvois, Catalogue raisonné du muséum de Mr. C. W. Peale, Philadelphia, p. 18. (English edition by Peale and Palisot de Beauvois, p. 15.)

1861. *A*[*talapha*] *mexicana* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 13, p. 97, March 1861. (Probably in Veracruz, Puebla, or Oaxaca, México. Regarded as identical with *cinereus* by Hall, Univ. Kansas Publ., Mus. Nat. Hist., vol. 5, No. 14, p. 226, Dec. 15, 1951.)

1864. *Lasiurus cinereus* H. Allen, Smithsonian Misc. Coll., vol. 7, publ. 165, p. 21, June 1864.

1884. *Atalapha cinerea* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

Type Locality.—Philadelphia, Pa. *Range.*—Boreal North America from Atlantic to Pacific, breeding within the Boreal Zone, but migrating southward at least to central Chihuahua (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 297, Aug. 14, 1942), and northern Michoacán, México (Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 22, p. 445, Dec. 27, 1949).

Genus DASYPTERUS[41] Peters

1871. *Dasypterus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1870, p. 912, 1871. (Type, *Lasiurus intermedius* H. Allen.)

Dayspterus intermedius (H. Allen)*

1862. *Lasiurus intermedius* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 246.

1884. *Atalapha intermedia* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1894. *Dasypterus intermedius* H. Allen, U. S. Nat. Mus. Bull. 43 (1893), p. 137, Mar. 14, 1894.

Type Locality.—Matamoros, Tamaulipas, México. *Range.*—From Tekom, Yucatán (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 558, July 10, 1951) and Chiapas, México, north to extreme southern Texas. Recorded also from Cuba (de Beaufort, Journ. Mamm., vol. 15, No. 4, p. 316, Nov. 15, 1934.)

Dasypterus floridanus Miller†*

1902. *Dasypterus floridanus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 392, Sept. 12, 1902.

Type Locality.—Lake Kissimmee, Osceola County, Fla. *Range.*—Florida and Gulf coast west to eastern Texas (Davis, Texas Fish and Game, vol. 3, No. 2, p. 13, Jan. 1945); north to Charleston, S. C. (Coleman, Journ. Mamm., vol. 29, No. 3, p. 293, Aug. 31, 1948). Recorded also south to Miami, Dade County, Fla. (Moore, Quart. Journ. Florida Acad. Sci., vol. 11, No. 1, p. 50, Mar. 22, 1949).

Dasypterus ega panamensis Thomas*

1901. *Dasypterus ega panamensis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 246, September 1901.

Type Locality.—Bogava [=Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. *Range.*—Panamá to Yucatán, México (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 335, Dec. 31, 1946).

Dasypterus ega xanthinus Thomas*

1897. *Dasypterus ega xanthinus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 544, December 1897.

Type Locality.—Sierra Laguna, Baja California, México. *Range.*—Southern half of peninsula of Baja California; also recorded from Palm Springs, Riverside County, Calif. (Constantine, Bull. Southern California Acad. Sci., vol. 45, p. 107, Sept. 20, 1946).

Genus NYCTICEIUS[42] Rafinesque

1819. *Nycticeius* Rafinesque, Journ. Phys. Chim. Hist. Nat. et Arts, Paris, vol. 88, p. 417, June 1819. (Type, *Vespertilio humeralis* Rafinesque.)

Nycticeius humeralis humeralis (Rafinesque)*

1818. *Vespertilio humeralis* Rafinesque, Amer. Monthly Mag., vol. 3, No. 6, p. 445, October 1818.

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[41] Revised by Miller, North Amer. Fauna No. 13, pp. 115–118, Oct. 16, 1897.

[42] Revised by Miller, North Amer. Fauna No. 13, pp. 118–121, Oct. 16, 1897.

1819. *N[ycticeius] humeralis* Rafinesque, Journ. Phys. Chim. Hist. Nat. et Arts, Paris, vol. 88, p. 417, June 1819.

1884. *Nycticejus crepuscularis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1891. *Nycticejus humeralis* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 7, p. 528, June 1891.

Type Locality.—Kentucky. *Range.*—Austral Zones in the eastern United States, north to southwestern Ontario (Point Pelee) and southwestern Michigan (Kalamazoo County), south to Florida, Alabama, Louisiana, and southern Texas; west to northeastern Kansas (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 72, Aug. 25, 1952).

Nycticeius humeralis subtropicalis Schwartz

1951. *Nycticeius humeralis subtropicalis* Schwartz, Journ. Mamm., vol. 32, No. 2, p. 233, May 21, 1951.

Type Locality.—Two and one-half miles west of Monroe Station, Collier County, Fla. *Range.*—Known only from area near Monroe Station at intersection of Tamiami Trail (U. S. Route 41) and State Route 94, Collier County, Fla., but probably occurs over most of subtropical portion of southern Florida.

Nycticeius humeralis mexicanus Davis

1944. *Nycticeius humeralis mexicanus* Davis, Journ. Mamm., vol. 25, No. 4 (November), p. 380, Dec. 12, 1944.

Type Locality.—Río Ramos, 20 kilometers northwest of Montemorelos, Nuevo León, México. Altitude, 1,000 feet.

Nycticeius cubanus (Gundlach)*

1861. *Vesperus cubanus* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1861, p. 150.

1904. *Nycticeius cubanus* Miller, Proc. U. S. Nat. Mus., vol. 27, p. 338, Jan. 23, 1904.

Type Locality.—Near Cárdenas, Matanzas, Cuba. *Range.*—Cuba.

Genus RHOGEËSSA[43] H. Allen

1866. *Rhogeëssa* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 285. (Type, *Rhogeëssa tumida* H. Allen.)

Rhogeëssa parvula parvula H. Allen*

1866. *R[hogeëssa] parvula* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 285.

1897. *Rhogeëssa parvula* Miller, North Amer. Fauna No. 13, p. 125, Oct. 16, 1897.

1952. *Rhogeëssa parvula parvula* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 15, p. 231, Apr. 10, 1952.

Type Locality.—Tres Marías Islands, Nayarit, México. *Range.*—Tres Marías Islands and western mainland of México from Alamos, Sonora, south to San Blas, Nayarit (Hall, loc. cit.).

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[43] Revised by Miller, North Amer. Fauna No. 13, pp. 122–129, Oct. 16, 1897.

Rhogeëssa parvula tumida H. Allen†*

1866. *R[hogeëssa] tumida* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 286.

1884. *Vesperugo parvulus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1897. *R[hogeëssa] tumida* Miller, North Amer. Fauna No. 13, p. 123, Oct. 16, 1897.

1952. *Rhogeëssa parvula tumida* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 15, p. 231, Apr. 10, 1952.

Type Locality.—Mirador, Veracruz, México. *Range.*—Panamá (G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 228, Aug. 12, 1935) north to Yucatán, México (Hatt, Journ. Mamm., vol. 19, No. 3, p. 335, Aug. 18, 1938); and Boca del Río, Veracruz, in eastern México (Hall, loc. cit.).

Rhogeëssa gracilis Miller†*

1897. *Rhogeëssa gracilis* Miller, North Amer. Fauna No. 13, p. 126, Oct. 16, 1897.

Type Locality.—Piaxtla, Puebla, México. *Range.*—Southern México.

Genus BAEODON Miller

1906. *Baeodon* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906. (Type, *Rhogeëssa alleni* Thomas.)

Baeodon alleni (Thomas)

1892. *Rhogeëssa alleni* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 10, p. 477, December 1892.

1906. *Baeodon alleni* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906.

Type Locality.—Santa Rosalía, near Autlán, Jalisco, México. *Range.*—Known from type locality only.

Genus EUDERMA[44] H. Allen

1892. *Euderma* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 43 (1891), p. 467, Jan. 19, 1892. (Type, *Histiotus maculatus* J. A. Allen.)

Euderma maculata (J. A. Allen)*

1891. *Histiotus maculatus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 195, Feb. 20, 1891.

1894. *Euderma maculata* H. Allen, U. S. Nat. Mus. Bull. 43 (1893), p. 61, Mar. 14, 1894.

Type Locality.—Near Piru, Ventura County, Calif. (probably at mouth of Castac Creek, Santa Clara Valley, Los Angeles County, 8 miles east of Piru; see Miller, North Amer. Fauna No. 13, p. 49, Oct. 16, 1897). *Range.*—Southwestern United States; recorded definitely from Piru, Mecca, Yosemite Valley, and Red Rock Canyon, Calif.; Reno, Nev.; Salt Lake City, Utah; Yuma, Ariz.; Mesilla Park, N. Mex. (see Durrant, Journ. Mamm., vol. 16, No. 3, p. 226, Aug. 12,

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[44] Revised by Miller, North Amer. Fauna No. 13, pp. 46–49, Oct. 16, 1897.

1935, and Hall, Journ. Mamm., vol. 20, No. 1, p. 103, Feb. 15, 1939); and Billings, Mont. (Nicholson, Journ. Mamm., vol. 31, No. 2, p. 197, May 25, 1950).

Genus CORYNORHINUS[45] H. Allen

1865. *Corynorhinus* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 174. (Type, *Plecotus macrotis* Le Conte.)

Corynorhinus rafinesquii rafinesquii (Lesson)*

1818. *Vespertilio megalotis* Rafinesque, Amer. Monthly Mag., vol. 3, No. 6, p. 446, October 1818. (Not of Bechstein, Thomas Pennant's allgemeine Uebersicht der vierfüssigen Thiere . . . , vol. 2, p. 622, 1800.)

1827. *Plecotus rafinesquii* Lesson, Manuel de mammalogie, . . . , p. 96.

1916. *Corynorhinus megalotis* G. M. Allen, Bull. Mus. Comp. Zool., vol. 60, p. 338, April 1916.

1916. *Corynorhinus rafinesquii* Thomas, Proc. Biol. Soc. Washington, vol. 29, p. 127, June 6, 1916.

Type Locality.—"The lower parts of the Ohio" River, probably in southern Indiana and Illinois or western Kentucky in the region between the Wabash and Green Rivers. *Range.*—Central eastern United States from extreme western Virginia, northeastern West Virginia (Wilson, Journ. Mamm., vol. 27, No. 1, p. 86, Mar. 14, 1946), through Kentucky, southern Indiana and Illinois, intergrading with the race *pallescens* to the westward.

Corynorhinus rafinesquii pallescens Miller†*

1897. *Corynorhinus macrotis pallescens* Miller, North Amer. Fauna No. 13, p. 52, Oct. 16, 1897.

1916. *Corynorhinus megalotis pallescens* G. M. Allen, Bull. Mus. Comp. Zool., vol. 60, p. 341, April 1916.

Type Locality.—Keam Canyon, Navajo County, Ariz. *Range.*—Western United States from western Texas, south-central Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 65, September 1944), Colorado, and southwestern South Dakota west through Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 293, Aug. 14, 1941), Nevada south of Esmeralda and White Pine Counties (Hall, Mammals of Nevada, p. 162, July 1, 1946), and the Colorado and Mohave deserts of California to the Pacific Coast in San Diego County (Dalquest, Journ. Mamm., vol. 28, No. 1, p. 19, Feb. 17, 1947). Also recorded from northeastern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 26, Feb. 15, 1938).

Corynorhinus rafinesquii townsendii (Cooper)*

1837. *Plecotus townsendii* Cooper, Ann. Lyc. Nat. Hist. New York, vol. 4, p. 73, November 1837.

1897. *Corynorhinus macrotis townsendii* Miller, North Amer. Fauna No. 13, p. 53, Oct. 16, 1897.

1916. *Corynorhinus megalotis townsendii* G. M. Allen, Bull. Mus. Comp. Zool., vol. 60, p. 344, April 1916.

Type Locality.—Columbia River, Oreg. *Range.*—Humid coast region from Vancouver Island, British Columbia, southward to 4 miles south of Calistoga,

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[45] Revised by Miller, North Amer. Fauna No. 13, pp. 49–54, Oct. 16, 1897; and G. M. Allen Bull. Mus. Comp. Zool., vol. 60, pp. 333–356, April 1916. California forms reviewed by Dalquest, Journ. Mamm., vol. 28, No. 1, pp. 17–30, Feb. 17, 1947.

Napa County, Calif. (Dalquest, Journ. Mamm., vol. 28, No. 1, p. 20, Feb. 17, 1947).

Corynorhinus rafinesquii intermedius H. W. Grinnell

1914. *Corynorhinus macrotis intermedius* H. W. Grinnell, Univ. California Publ. Zool., vol. 12, No. 10, p. 320, Dec. 4, 1914.

1933. *Corynorhinus rafinesquii intermedius* Whitlow and Hall, Univ. California Publ. Zool., vol. 40, No. 3, p. 243, Sept. 30, 1933.

Type Locality.—Auburn, Placer County, Calif. Altitude 1,300 feet. *Range.*—Channel Islands and central and northern California east of humid coastal area (Dalquest, Journ. Mamm., vol. 28, No. 1, p. 20, Feb. 17, 1947); western Nevada north of Pine Grove and probably northern part of state (Hall, Mammals of Nevada, p. 160, July 1, 1946); Bingham and Bannock Counties, Idaho (Whitlow and Hall, loc. cit.); arid eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 164, Apr. 9, 1948); and south-central British Columbia, Canada.

Corynorhinus rafinesquii mexicanus G. M. Allen†*

1916. *Corynorhinus megalotis mexicanus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 60, p. 347, April 1916.

Type Locality.—Near Pacheco, Chihuahua, México. *Range.*—The Mexican tableland, from central and western Chihuahua, southward to Oaxaca and Veracruz; the precise limits are not yet fully ascertained.

Corynorhinus macrotis (Le Conte)*

1831. *Plec[otus] macrotis* Le Conte, *in* McMurtrie, The animal kingdom . . . by the Baron Cuvier, vol. 1, p. 431.

1865. *C[orynorhinus] macrotis* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 174.

Type Locality.—Georgia; probably the Le Conte plantation, near Riceboro, Liberty County. *Range.*—Southeastern United States, from North Carolina, Georgia, and northern Florida, westward through the Southern and Gulf States, into Louisiana, and probably eastern Texas. Recorded also from Dismal Swamp, extreme southeastern Virginia (Miller, North Amer. Fauna No. 13, p. 52, Oct. 16, 1897); Collison Cave, Nicholas County, south-central West Virginia (Frum, Journ. Mamm., vol. 29, No. 4, p. 418, Dec. 31, 1948); Zellwood, Orange County, Fla. (Moore, Quart. Journ. Florida Acad. Sci., vol. 11, No. 1, p. 50, March 22, 1949); and Obion County, Tenn. (Goodpaster and Hoffmeister, Journ. Mamm., vol. 33, No. 3, p. 365, Aug. 19, 1952).

Corynorhinus phyllotis G. M. Allen

1916. *Corynorhinus phyllotis* G. M. Allen, Bull. Mus. Comp. Zool., vol. 60, p. 352, April 1916.

Type Locality.—San Luis Potosí (probably near city of same name), México. *Range.*—At present known from type locality only.

Genus IDIONYCTERIS Anthony

1923. *Idionycteris* Anthony, Amer. Mus. Nov., No. 54, p. 1, Jan. 17, 1923. (Type, *Idionycteris mexicanus* Anthony.)

Idionycteris mexicanus Anthony

1923. *Idionycteris mexicanus* Anthony, Amer. Mus. Nov., No. 54, p. 1, Jan. 17, 1923.

Type Locality.—Miquihuana, Tamaulipas, México.

Subfamily NYCTOPHILINAE

Genus ANTROZOUS[46] H. Allen

1862. *Antrozous* H. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 248. (Type, *Vespertilio pallidus* Le Conte.)

Antrozous pallidus pallidus (Le Conte)†*

1856. *V[espertilio] pallidus* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–5), p. 437.

1864. *Antrozous pallidus* H. Allen, Smithsonian Misc. Coll., vol. 7, publ. 165, p. 68, June 1864.

1884. *Anthrozous* [*sic*] *pallidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884. (Part.)

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Colorado and Mohave deserts of California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 93, Sept. 26, 1933) to eastern Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 293, Aug. 14, 1941) and western Texas, south to Nuevo León (Davis, Journ. Mamm., vol. 25, No. 4, p. 380, Dec. 12, 1944), and northern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 27, Feb. 15, 1938).

Antrozous pallidus pacificus Merriam†*

1897. *Antrozous pallidus pacificus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 180, July 1, 1897. (Regarded by H. W. Grinnell, Univ. California Publ. Zool., vol. 17, No. 12, p. 352, Jan. 31, 1918, as a distinct species.)

Type Locality.—Old Fort Tejon, Tehachapi Mountains, Kern County, Calif. Altitude, 3,200 feet. *Range.*—Pacific coastal area, chiefly west of the Cascade–Sierran divide and the Mohave and Colorado deserts, from Eugene, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June 1936), p. 390, Aug. 29, 1936), south at least to Mexican boundary of southern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 94, Sept. 26, 1933).

Antrozous pallidus cantwelli V. Bailey†*

1936. *Antrozous pallidus cantwelli* V. Bailey, North Amer. Fauna No. 55 (June 1936), p. 391, Aug. 29, 1936.

Type Locality.—Rogersburg, Asotin County, Wash. *Range.*—Upper Sonoran Zone from western Utah (Hardy, Journ. Mamm., vol. 22, No. 3, p. 293, Aug. 14, 1941) and northern Nevada through eastern Oregon and eastern Washington to the Okanagan Valley in southern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 33, Jan. 24, 1947).

Antrozous bunkeri Hibbard*

1934. *Antrozous bunkeri* Hibbard, Journ. Mamm., vol. 15, No. 3, p. 227, Aug. 11, 1934.

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[46] Revised by Miller, North Amer. Fauna No. 13, pp. 42–46, Oct. 16, 1897.

Type Locality.—Seven miles south of Sun City, Barber County, Kan. (in tunnel at the natural bridge on south fork of Bear Creek). *Range.*—Also recorded from Cimmaron County, extreme northwestern Oklahoma (Burt, Journ. Mamm., vol. 26, No. 3, p. 309, Nov. 14, 1945).

Antrozous minor Miller†*

1902. *Antrozous minor* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 389, Sept. 12, 1902.

Type Locality.—Comondú, Baja California, México.

Family MOLOSSIDAE

Genus CYNOMOPS[47] Thomas

1920. *Cynomops* Thomas, Ann. Mag. Nat. Hist., ser. 9, vol. 5, p. 189, February 1920. (Type, *Molossus cerastes* Thomas.)

Cynomops planirostris planirostris (Peters)*

1865. *M[olossus] planirostris* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 575.

1907. *M[olossops] planirostris* Miller, U. S. Nat. Mus. Bull. 57, p. 248, June 29, 1907.

1920. *C[ynomops] planirostris* Thomas, Ann. Mag. Nat. Hist., ser. 9, vol. 5, p. 189, February 1920.

Type Locality.—British Guiana. *Range.*—North to Panamá (G. M. Allen, Bull. Mus. Comp. Zool., vol. 52, p. 56, July 1908).

Genus TADARIDA[48] Rafinesque

1814. *Tadarida* Rafinesque, Précis des découvertes et travaux somiologiques . . . , p. 55. (Type, *Cephalotes teniotis* Rafinesque.)

1902. *Nyctinomops* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 393, Sept. 12, 1902. (Type, *Nyctinomus femorosaccus* Merriam.)

brasiliensis—group

Tadarida brasiliensis (I. Geoffroy-Saint-Hilaire)*

1824. *Nyctinomus brasiliensis* I. Geoffroy-Saint-Hilaire, Ann. Sci. Nat., vol. 1, p. 343.

1920. *Tadarida brasiliensis* Thomas, Proc. U. S. Nat. Mus., vol. 58, p. 222, Nov. 10, 1920.

Type Locality.—Curityba, Paraná, Brazil. *Range.*—From Cuautla, Morelos (Martinez and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 9, Nos. 3–4, p. 354, 1938) and Mexicapán, Teloloapan, Guerrero (Martinez and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 11, No. 1, p. 300, 1940) in México southward through Central America and South America as far as southern Brazil and central Chile.

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[47] Revised (under the name Molossops) by Miller, North Amer. Fauna No. 13, pp. 42–46, Oct. 16, 1897.

[48] For use of this name in place of *Nyctinomus* Oken (Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sect. 2, p. 924, 1816) see Lyon, Proc. Biol. Soc. Washington, vol. 27, pp. 217–218, Oct. 31, 1914. Revised by Shamel, Proc. U. S. Nat. Mus., vol. 78, art. 19, pp. 1–27, May 6, 1931.

Tadarida mexicana (Saussure)*

1860. *Molossus mexicanus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 283, July 1860.

1889. *Nyctinomus mohavensis* Merriam†, North Amer. Fauna No. 2, p. 25, Oct. 30, 1889. (Fort Mohave, Mohave County, Ariz.)

1894. *Nyctinomus brasiliensis californicus* H. Allen, U. S. Nat. Mus. Bull. 43 (1893), p. 166, Mar. 14, 1894. (California, exact locality unknown.)

1924. *Tadarida mexicana* Miller, U. S. Nat. Mus. Bull. 128, p. 86, Apr. 29, 1924.

Type Locality.—Cofre de Perote, Veracruz, México. Altitude, 13,000 feet. (Not Ameca, Jalisco, México, as stated by Shamel, Proc. U. S. Nat. Mus., vol. 78, p. 5, May 6, 1931. See Benson, Journ. Washington Acad. Sci., vol. 34, No. 5, p. 159, May 25, 1944.) *Range.*—México and Texas north to south-central Kansas (Hibbard, Journ. Mamm., vol. 17, No. 2, p. 167, May 18, 1936), west through Colorado, Utah and western Nevada to Oregon; south through California into Baja California and Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 27, Feb. 15, 1938). Recorded also from Lincoln, Lancaster County, eastern Nebraska (Webb and Jones, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 21, p. 278, May 31, 1952).

Tadarida texana Stager

1942. *Tadarida texana* Stager, Bull. Southern California Acad. Sci., vol. 41, pt. 1, p. 49, May 31, 1942.

Type Locality.—Ney Cave, 20 miles north of Hondo, Medina County, Tex. *Range.*—Known from type locality only.

Tadarida intermedia Shamel†*

1931. *Tadarida intermedia* Shamel, Proc. U. S. Nat. Mus., vol. 78, art. 19, p. 7, May 6, 1931.

Type Locality.—Valley of Comitán, Chiapas, México. *Range.*—Tropical Zone in Guatemala and southern México.

Tadarida cynocephala (Le Conte)†*

1831. *Nyct[icea] cynocephala* Le Conte, *in* McMurtrie, The animal kingdom . . . by the Baron Cuvier, vol. 1, p. 432.

1837. *Molossus fuliginosus* Cooper, Ann. Lyc. Nat. Hist. New York, vol. 4, p. 67, November 1837. (Milledgeville, Ga.)

1884. *Nyctinomus brasiliensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884. (Part.)

1924. *Tadarida cynocephala* Miller, U. S. Nat. Mus. Bull. 128, p. 85, Apr. 29, 1924.

Type Locality.—Georgia; probably the Le Conte plantation, near Riceboro, Liberty County. *Range.*—Louisiana, Alabama, Florida, Georgia, and South Carolina.

Tadarida bahamensis (Rehn)*

1902. *Nyctinomus bahamensis* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 641, Dec. 12, 1902.

1924. *Tadarida bahamensis* Miller, U. S. Nat. Mus. Bull. 128, p. 85, Apr. 29, 1924.

Type Locality.—Governor's Harbor, Eleuthera, Bahamas. *Range.*—Eleuthera, Long, and Little Abaco Islands, Bahamas.

Tadarida muscula (Gundlach)*

1861. *Nyctinomus musculus* Gundlach, Monatsb. Preuss. Akad. Wiss. Berlin, 1861, p. 49.

1924. *Tadarida muscula* Miller, U. S. Nat. Mus. Bull. 128, p. 86, Apr. 29, 1924.

Type Locality.—Cuba. *Range.*—Cuba.

Tadarida murina (Gray)*

1827. *Nyctinomus murinus* Gray, *in* Griffith, The animal kingdom . . . by the Baron Cuvier . . . , vol. 5, p. 66.

1931. *Tadarida murina* Shamel, Proc. U. S. Nat. Mus., vol. 78, art. 19, p. 9, May 6, 1931.

Type Locality.—Jamaica. *Range.*—Jamaica.

Tadarida constanzae Shamel†*

1931. *Tadarida constanzae* Shamel, Proc. U. S. Nat. Mus., vol. 78, art. 19, p. 10, May 6, 1931.

Type Locality.—Constanza, Dominican Republic. *Range.*—Haiti and Dominican Republic.

Tadarida antillularum (Miller)†*

1902. *Nyctinomus antillularum* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 398, Sept. 12, 1902.

1924. *Tadarida antillularum* Miller, U. S. Nat. Mus. Bull. 128, p. 85, Apr. 29, 1924.

Type Locality.—Roseau, Dominica, Lesser Antilles. *Range.*—The Islands of Dominica, St. Lucia, Guadeloupe, Montserrat, Antigua, Barbuda, St. Kitts, and Puerto Rico.

macrotis—group

Tadarida femorosacca (Merriam)†*

1889. *Nyctinomus femorosaccus* Merriam, North Amer. Fauna No. 2, p. 23, Oct. 30, 1889.

1924. *Tadarida femorosacca* Miller, U. S. Nat. Mus. Bull. 128, p. 86, Apr. 29, 1924.

Type Locality.—Agua Caliente, now Palm Springs, Riverside County, Calif. *Range.*—Arizona, California (Krutzsch, Journ. Mamm., vol. 25, No. 4, p. 413, Dec. 12, 1944), Baja California, and Jalisco, México. Also recorded from near Alamos, southeastern Sonora (Benson, Journ. Mamm., vol. 21, No. 1, p. 26, Feb. 14, 1940); and near Antiquo Morelos, Tamaulipas, México (Dalquest and Hall, Univ. Kansas, Publ. Mus. Nat. Hist., vol. 1, p. 247, Dec. 10, 1947).

Tadarida yucatanica (Miller)*

1884. *Nyctinomus gracilis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1902. *Nyctinomops yucatanicus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 393, Sept. 12, 1902.

1924. *Tadarida yucatanica* Miller, U. S. Nat. Mus. Bull. 128, p. 87, April 29, 1924.

Type Locality.—Chichén Itzá, Yucatán, México. *Range.*—Yucatán, México, Guatemala (Sanborn, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 387, Dec. 8, 1941), and British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 19, July 15, 1935).

Tadarida molossa (Pallas)*

1766. *V*[*espertilio*] *molossus* Pallas, . . . Miscellanea zoologica, . . . , p. 49; . . . Spicilegia zoologica, . . . , fasc. 3, p. 8, 1767. (See Miller, Proc. U. S. Nat. Mus., vol. 46, p. 86 and footnote 4, Aug. 23, 1913.)

1839. *Nyctinomus macrotis* Gray, Ann. Nat. Hist., vol. 4, p. 5, September 1839. (Interior of Cuba.)

1884. *Nyctinomus macrotis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), Nov. 29, 1884.

1891. *Nyctinomus depressus* Ward, Amer. Nat., vol. 25, p. 747, August 1891. (Tacubaya, Distrito Federal, México.)

1894. *Nyctinomus macrotis nevadensis* H. Allen,† U. S. Nat. Mus. Bull. 43 (1893), p. 171, Mar. 14, 1894. (California, exact locality unknown. See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 326, footnote, Nov. 7, 1894.)

1913. *Nyctinomus molossus* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 86 and footnote 4, Aug. 23, 1913.

1931. *Tadarida macrotis* Shamel, Proc. U. S. Nat. Mus., vol. 78, p. 15, May 6, 1931. (Part.)

Type Locality.—"America"; "not improbably from Surinam" (Miller, loc. cit.). *Range.*—From Brazil northward to Iowa (Shamel, op. cit., p. 16), western Utah (Durrant and Setzer, Journ. Mamm., vol. 24, No. 4, p. 501, Nov. 20, 1943), San Diego, Calif. (Huey, Journ. Mamm., vol. 13, No. 2, p. 160, May 11, 1932), and Essondale, near New Westminister, British Columbia (Cowan, Canadian Field-Nat., vol. 59, No. 4, p. 149, December 1945); Cuba and Jamaica. Recorded also from Morton County, Kans. (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 85, Aug. 25, 1952).

Genus MORMOPTERUS Peters

1865. *Mormopterus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 258. (Type, *Nyctinomus jugularis* Peters.)

Mormopterus minutus (Miller)

1899. *Nyctinomus minutus* Miller, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 173, Oct. 20, 1899.

1907. *M* [*ormopterus*] *minutus* Miller, U. S. Nat. Mus. Bull. 57, p. 254, June 29, 1907.

Type Locality.—Trinidad, Santa Clara, Cuba.

Genus PROMOPS Gervais

1855. *Promops* Gervais, *in* [Castelnau, Expédition dans les parties centrales de l'Amerique du Sud, . . . , pt. 7, Zoologie:] Animaux nouveaux, ou rares, recueillis . . . , p. 58. (Type, *Promops ursinus* Gervais = *Molossus nasutus* Spix.)

Promops centralis Thomas*

1884. *Molossus nasutus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1915. *Promops centralis* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 16, p. 62, July 1915.

Type Locality.—Northern Yucatán, México. *Range.*—Recorded from Jalisco and northern Yucatán, México; Guatemala; and Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 338, Dec. 31, 1946).

Genus EUMOPS [49] Miller

1906. *Eumops* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906. (Type, *Molossus californicus* Merriam.)

Eumops perotis perotis (Schinz) *

1821. *Molossus perotis* Schinz, Das Thierreich . . . , vol. 1, p. 870.

1906. *E* [*umops*] *perotis* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906.

Type Locality.—Villa São Salvador, Campos dos Goaytocasas [Goitzcazes], Rio Parahyba [Paraiba], Brazil. *Range.*—South America east of the Andes, south of the Amazon, and north of the Paraná River; Cuba. Recorded also from Pumpville, Pecos River, Tex. (Davis, Texas Fish and Game, vol. 3, No. 2, p. 13, January 1945).

Eumops perotis californicus (Merriam) †*

1890. *Molossus californicus* Merriam, North Amer. Fauna No. 4, p. 31, Oct. 8, 1890.

1932. *Eumops perotis californicus* Sanborn, Journ. Mamm., vol. 13, No. 4, p. 351, Nov. 2, 1932.

Type Locality.—Alhambra, Los Angeles County, Calif. *Range.*—California south of Hayward, Alameda County (Sanborn, loc. cit.), parts of Arizona, and mountains of northeastern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 28, Feb. 15, 1938).

Eumops abrasus milleri (J. A. Allen) *

1884. *Molossus abrasus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 603, Nov. 29, 1884.

1900. *Promops milleri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 13, p. 92, May 12, 1900.

1932. *Eumops abrasus milleri* Sanborn, Journ. Mamm., vol. 13, No. 4, p. 352, Nov. 2, 1932.

Type Locality.—Guayabamba, Perú. *Range.*—Perú, and southern border of Amazon north to Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 339, Dec. 31, 1946).

Eumops underwoodi underwoodi Goodwin

1940. *Eumops underwoodi* Goodwin, Amer. Mus. Nov., No. 1075, p. 2, June 27, 1940.

1949. *Eumops underwoodi underwoodi* Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 22, p. 445, Dec. 27, 1949.

Type Locality.—El Pedrero, 6 kilometers north of Chincala, La Paz, Honduras. Altitude, 3,000 feet. *Range.*—Recorded also from Rancho Escondido,

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[49] Revised by Sanborn, Journ. Mamm., vol. 13, No. 4, pp. 347–357, Nov. 2, 1932.

2 miles north of Apo, Tancítaro Mountain, Michoacán, México (Hall and Villa, loc. cit.).

Eumops underwoodi sonoriensis Benson

1947. *Eumops sonoriensis* Benson, Proc. Biol. Soc. Washington, vol. 60, p. 133, December 31, 1947.

1949. *Eumops underwoodi sonoriensis* Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 22, p. 446, Dec. 27, 1949.

Type Locality.—Rancho de Costa Rica, Río Sonora, México. Altitude, 270 feet. *Range.*—Recorded also at 10 miles northwest of Noche Buena (approximately 18 miles north-northwest of Guaymas), Sonora, México.

Eumops glaucinus (Wagner)*

1843. *Dysopes glaucinus* Wagner, Arch. Naturg., Jahrg. 9, vol. 1, p. 368.

1889. *Nyctinomus orthotis* H. Allen†, Proc. Amer. Philos. Soc., vol. 26, p. 561, Dec. 18, 1889. (Spanishtown, Jamaica.)

1906. *E [umops] glaucinus* Miller, Proc. Biol. Soc. Washington, vol. 19, p. 85, June 4, 1906.

Type Locality.—Cuyaba, Mato Grosso, Brazil. *Range.*—Colombia, Ecuador and Brazil in South America; Cuba and Jamaica in the West Indies; Miami, Fla. (Barbour, Journ. Mamm., vol. 17, No. 4, p. 414, November 1936); Costa Rica, Honduras and Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 144, May 29, 1942); and Yucatán and Morelos in México (Sanborn, Journ. Mamm., vol. 13, No. 4, p. 353, Nov. 2, 1923).

Eumops bonariensis nanus (Miller)*

1900. *Promops nanus* Miller, Ann. Mag. Nat. Hist., ser. 7, vol. 6, p. 470, November 1900.

1932. *Eumops bonariensis nanus* Sanborn, Journ. Mamm., vol. 13, No. 4, p. 356, Nov. 11, 1932.

Type Locality.—Bogava [Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 800 feet. *Range.*—Panamá.

Genus MOLOSSUS[60] É. Geoffroy-Saint-Hilaire

1805. *Molossus* É. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, vol. 6, p. 151. (Type, *Vespertilio molossus major Kerr* = *Vespertilio molossus* (part) of authors other than Pallas.)

rufus—group

Molossus nigricans Miller†*

1884. *Molossus rufus* True, Proc, U. S. Nat. Mus., vol. 7 (App., Circ 29), p. 603, Nov. 29, 1884. (Part.)

1902. *Molossus nigricans* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 395, Sept. 12, 1902.

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[60] "Notes" on the genus *Molossus*, as nearly monographic in character as the material would permit, were published by Miller, Proc. U. S. Nat. Mus., vol. 46, pp. 85–92, Aug. 23, 1913.

Type Locality.—Acaponeta, Nayarit, México. *Range.*—From Nayarit, Veracruz, and Yucatán south to Chinandega, Nicaragua, and probably Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 341, Dec. 31, 1946).

Molossus rufus sinaloae J. A. Allen*

1906. *Molossus sinaloae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 236, July 25, 1906.

1935. *Molossus rufus sinaloae* G. M. Allen, Journ. Mamm., vol. 16, No. 3, p. 228, Aug. 12, 1935.

Type Locality.—Escuinapa, Sinaloa, México. *Range.*—From Sinaloa, México, south through Central America to western Panamá (G. M. Allen, loc. cit.). Recorded also from Calcehtok, Yucatán, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. Mexico, vol. 21, No. 1, p. 232, Sept. 28, 1950), and Belize and Stann Creek Valley, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 559, July 10, 1951).

currentium—group

Molossus bondae J. A. Allen*

1904. *Molossus bondae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 228, June 29, 1904.

Type Locality.—Bonda, Santa Marta, Colombia. *Range.*—Also recorded from Nicaragua and Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 145, May 29, 1942).

obscurus—group

Molossus fortis Miller†*

1913. *Molossus fortis* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 89, Aug. 23, 1913.

Type Locality.—Luquillo, Puerto Rico.

Molossus milleri Johnson*

1838. *Molossus fuliginosus* Gray, Mag. Zool. Bot., vol. 2, p. 501, February 1838. (Preoccupied by *Molossus fulginosus* Cooper.)

1913. *Molossus fuliginosus* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 90, Aug. 23, 1913.

1952. *Molossus milleri* Johnson, Proc. Biol. Soc. Washington, vol. 65, p. 197, Nov. 5, 1952.

Type Locality.—Jamaica.

Molossus major major (Kerr)*

1792. *V*[*espertilio*] *mol*[*ossus*] *major* Kerr, The animal kingdom, p. 97.

1913. *Molossus major* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 90, Aug. 23, 1913.

Type Locality.—Martinique, Lesser Antilles. *Range.*—Recorded also in Dominica.

Molossus major verrilli J. Allen*

1908. *Mollossus* [sic] *verilli* J. A. Allen, Bull. Amer. Mus. Nat. His., vol. 24, p. 581, Sept. 11, 1908.

1951. *Molossus major verrilli* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 558, July 10, 1951. (Regarded as doubtfully distinct from *major*.)

Type locality.—Samaná, Dominican Republic. *Range.*—Recorded also from Petionville, Haiti.

Molossus debilis Miller†*

1913. *Molossus debilis* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 90, August 23, 1913.

Type Locality.—St. Kitts, Lesser Antilles. *Range.*—Recorded also in Nevis, Antigua, and Montserrat.

Molossus obscurus É. Geoffroy-Saint-Hilaire*

1805. *Molossus obscurus* E. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, vol. 6, p. 155. (Regarded as a subspecies of *Molossus major* by Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 454, May 10, 1949.)

Type Locality.—Surinam. (See G. M. Allen, Bull. Mus. Comp. Zool., vol. 52, p. 58, July 1908.) *Range.*—Recorded also from Barbados and St. Lucia, Lesser Antilles, and Grenada (Jones, Journ. Mamm., vol. 32, No. 2, p. 224, May 21, 1951).

Molossus aztecus Saussure*

1860. *M[olossus] aztecus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 285, July 1860.

1913. *Molossus aztecus* Miller, Proc. U. S. Nat. Mus., vol. 46, p. 91, Aug. 23, 1913. (See also Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 454, May 10, 1949.)

Type Locality.—Amecameca, México, México. *Range.*—Also recorded from British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 20, July 15, 1935), and Huehuetán, Chiapas, México (Miller, loc. cit.).

pygmaeus—group

Molossus coibensis J. A. Allen*

1904. *Molossus coibensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 227, June 29, 1904.

Type Locality.—Coiba Island, Panamá. (See also Hershkovitz, Proc. U. S. Nat. Mus., vol. 99, p. 454, May 10, 1949.) *Range.*—Recorded also on mainland of Panamá.

Molossus tropidorhynchus Gray*

1839. *Molossus tropidorhynchus* Gray, Ann. Nat. Hist., vol. 4, p. 6, September 1839.

1904. *Molossus tropidorhynchus* Miller, Proc. U. S. Nat. Mus., vol. 27, p. 339, Jan. 23, 1904.

Type Locality.—Cuba.

Order PRIMATES

Suborder ANTHROPOIDEA

Superfamily CEBOIDEA

Family CEBIDAE

Subfamily AOTINAE (douroucoulis)

Genus AOTUS Humboldt

1811. *Aotus* Humboldt, Recueil d'observations de zoologie et d'anatomie comparée; . . . , *in* Humboldt and Bonpland, Voyage aux régions equinoxiales du nouveau continent, . . . , pt. 2, [Zoology], vol. 1, p. 358. (Type, *Simia trivirgata* Humboldt. For use of *Aotus* in place of *Nyctipithecus* Spix (Simiarum et vespertilionum Brasiliensium . . . , p. 24, 1823) see Palmer, Science, new ser., vol. 10, p. 493, Oct. 6, 1899.)

Aotus bipunctatus Bole

1937. *Aotus bipunctatus* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 152, Aug. 31, 1937.

Type Locality.—Paracoté, 3 miles east of Montijo Bay, and 1½ miles south of mouth of Río Angulo, Veraguas, Panamá.

Aotus rufipes (Sclater)

1872. *Nyctipithecus rufipes* Sclater, Proc. Zool. Soc. London, 1872, pt. 1, p. 3, June 1872.

1884. *Nyctipithecus rufipes* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1901. *Aotus rufipes* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 298, Dec. 27, 1901.

Type Locality.—Said to be San Juan del Norte, Nicaragua. (According to J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 114, Apr. 30, 1910, this is "unquestionably erroneous." See also Hershkovitz, Proc. U. S. Nat. Mus., vol. 98, p. 405, May 10, 1949.)

Aotus vociferans (Spix)

1823. *Nyctipithecus vociferans* Spix, Simiarum et vespertilionum Brasiliensium, . . . , p. 25.

1884. *Nyctipithecus vociferans* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1912. *A*[*otus*] *vociferans* Elliot, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 33, Mar. 4, 1912.

Type Locality.—Tabatinga, Amazonas, Brazil. *Range.*—A specimen is said to have been taken in the forest of Quindin, Costa Rica (Sclater, Proc. Zool. Soc. London, 1872, pt. 1, p. 3, June 1872), but this record is almost certainly erroneous (Elliot, A review of the Primates, vol. 2 (1912), pp. 14–15, June 15, 1913), and the species should be omitted from the North American list. Regarded by Hershkovitz (Proc. U. S. Nat. Mus., vol. 98, p. 408, May 10, 1940) as the night monkey of the Colombian highlands and identical with *Aotus trivirgatus lemurinus.*

Aotus zonalis Goldman†*

1914. *Aotus zonalis* Goldman, Smithsonian Misc. Coll., vol. 63, No. 5, p. 6, March 14, 1914. (Regarded as identical with *Aotus trivirgatus griseimembra* by Hershkovitz, Proc. U. S. Nat. Mus., vol. 98, p. 404, May 10, 1949.)

Type Locality.—Gatún, Canal Zone, Panamá. Altitude, 100 feet. *Range.*—Canal Zone and eastern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 225, Apr. 26, 1920).

Subfamily ALOUATTINAE (howlers)

Genus ALOUATTA[51] Lacépède

1799. *Alouatta* Lacépède, Tableau des divisions, sous-divisions, ordres et genres des mammifères, p. 4. (Published as a supplement to Discours d'ouverture et de clôture du cours d'histoire naturelle . . . . Type, *Simia belzebub* Linnaeus.)

Alouatta palliata palliata (Gray)*

1849. *Mycetes palliatus* Gray, Proc. Zool. Soc. London, 1848, pt. 16, p. 138, June 1, 1849.

1863. *Aluatta palliata* Slack, Proc. Acad. Nat. Sci. Philadelphia, vol. 15 (1862), p. 519.

1884. *Mycetes palliatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1897. [*Alouata*] *palliata* Trouessart, Catalogus Mammalium . . . , fasc. 1, p. 34.

1908. *Alouatta palliata matagalpae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 670, Oct. 13, 1908. (Lavala, Matagalpa, Nicaragua. For status see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 114, Apr. 30, 1910.)

Type Locality.—Lake Nicaragua. (Not Caracas, Venezuela. See Sclater, Proc. Zool. Soc. London, 1872, pt. 1, pp. 7–8, June 1872.) *Range.*—From extreme western part of Panamá north through Costa Rica, Nicaragua, and Honduras. In the south it merges gradually with *aequatorialis*, making the individuals from Panamá quite intermediate. Specimens from Honduras near Guatemalan border are typical *palliata;* intergradation between these and the Mexican and black Guatemalan forms probably takes place farther north.

Alouatta palliata aequatorialis Festa*

1903. *Alouata* [sic] *aequatorialis* Festa, Boll. Mus. Zool. Anat. Comp. Univ. Torino, vol. 18, No. 435, p. 3, Feb. 11, 1903.

1913. *Alouatta palliata inconsonans* Goldman†, Smithsonian Misc. Coll., vol. 60, No. 22, p. 17, Feb. 28, 1913. (Cerro Azul, near headwaters of Chagres River, Panamá. Altitude, 2,500 feet.)

1933. *Alouatta palliata aequatorialis* Lawrence, Bull. Mus. Comp. Zool., vol. 75, p. 322, November 1933.

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[51] Subspecies of *Alouatta palliata* revised by Lawrence, Bull. Mus. Comp. Zool., vol. 75, pp. 315–354, November 1933.

Type Locality.—Vinces, Ecuador. *Range.*—From southern limit of distribution of *palliata* in western Panamá through rest of Panamá and down along Pacific coast of South America through Colombia and Ecuador to region south of bay of Guayaquil. It is not, however, a strictly coastal form but is found as far inland as the region around Mindo in Ecuador. Specimens from Puntarenas, Costa Rica, and Boquerón in southwestern Panamá regarded as *aequatorialis* by Goodwin (Bull. Amer. Mus. Nat. Hist., vol. 87, p. 347, Dec. 31, 1946).

Alouatta palliata trabeata Lawrence*

1933. *Alouatta palliata trabeata* Lawrence, Bull. Mus. Comp. Zool., vol. 75, p. 328, November 1933.

Type Locality.—Capina, Herrera, Panamá. *Range.*—Azuero Peninsula, Pacific coast of Panamá.

Alouatta palliata coibensis Thomas*

1902. *Alouatta palliata coibensis* Thomas, Nov. Zool. vol. 9, p. 135, Apr. 10, 1902.

Type Locality.—Coiba Island, Panamá. *Range.*—Coiba Island, off Pacific coast of Panamá.

Alouatta palliata pigra Lawrence*

1845. *?Mycetes villosus* Gray, Ann. Mag. Nat. Hist., vol. 16, p. 220, October 1845.

1884. *?Mycetes villosus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1933. *Alouatta palliata pigra* Lawrence, Bull. Mus. Comp. Zool., vol. 75, p. 333, November 1933.

Type Locality.—Uaxactún, Petén, Guatemala. *Range.*—Probably confined to forests of limestone region of northern Guatemala and Yucatán and southern Chiapas, México.

Alouatta palliata luctuosa Lawrence

1933. *Alouatta palliata luctuosa* Lawrence, Bull. Mus. Comp. Zool., vol. 75, p. 337, November 1933.

Type Locality.—Mountain Cow, Cayo District, British Honduras. *Range.*—Probably a fairly small area in British Honduras.

Alouatta palliata mexicana Merriam†*

1902. *Alouatta palliata mexicana* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 67, Mar. 22, 1902.

Type Locality.—Minatitlán, Veracruz, México. *Range.*—Southeastern part of México in province of Veracruz; probably extending south to edge of limestone region inhabited by *pigra*.

Subfamily CEBINAE (capuchins)

Genus CEBUS Erxleben

1777. *Cebus* Erxleben, Systema regni animalis . . . , p. 44. (Type, *Simia capucina Linnaeus*, 1758. See opinion 91 of the International Commission on Zoological Nomenclature, Smithsonian Misc. Coll., vol. 73, No. 4, p. 1, Oct. 8, 1926.)

Cebus capucinus capucinus (Linnaeus)*

1758. [*Simia*] *capucina* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 29.

1884. *Cebus hypoleucas* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1909. *C*[*ebus*] *capucinus* Elliot, Bull. Amer. Mus. Nat. Hist., vol. 26, p. 229, Apr. 17, 1909.

Type Locality.—Northern Colombia (See Goldman, Proc. Biol. Soc. Washington, vol. 27, p. 99, May 11, 1914). *Range.*—Forests of eastern Panamá and northern Colombia.

Cebus capucinus imitator Thomas*

1903. *Cebus imitator* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 376, April 1903.

1914. *Cebus capucinus imitator* Goldman, Proc. Biol. Soc. Washington, vol. 27, p. 99, May 11, 1914.

Type Locality.—Bóquete, Chiriquí, Panamá. *Range.*—From Canal Zone, Panamá, westward and northward to Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 342, Dec. 31, 1946).

Cebus capucinus limitaneus Hollister†*

1914. *Cebus capucinus limitaneus* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 105, May 11, 1914.

Type Locality.—Río Segovia [or Wanks], eastern Honduras. [Restricted to Cabo Gracias a Dios at mouth of Río Segovia, eastern border between Honduras and Nicaragua, by Hershkovitz, Proc. U. S. Nat. Mus., vol. 98, p. 347, May 10, 1949.] *Range.*—Eastern and northern Honduras, and northeastern Nicaragua.

Genus SAIMIRI Voigt (squirrel marmosets)

1831. *Saimiri* Voigt, G. Leopold v. Cuvier, Das Thierreich, . . . , vol. 1, p. 95. (Type, *Simia sciurea* Linnaeus. For use of *Saimiri* in place of *Chrysothrix* Kaup (Das Thierreich . . . , vol. 1, p. 50, 1835) see Palmer, Proc. Biol. Soc. Washington, vol. 11, p. 174, June 9, 1897.)

Saimiri örstedii örstedii (Reinhardt)*

1872. *Chrysothrix örstedii* Reinhardt, Vid. Medd. naturh. For. Kjöbenhavn, ser. 3, vol. 4, Nos. 6–9, p. 157, pl. 3.

1884. *Chrysothrix oerstedi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1901. *Saimiri oerstedii* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 297, Dec. 27, 1901.

Type Locality.—Vicinity of David, Chiriquí, Panamá. *Range.*—Panamá and southwestern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 348, Dec. 31, 1946).

Saimiri örstedii citrinellus Thomas*

1904. *Saimiri oerstedi citrinellus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 250, April 1904.

Type Locality.—Pozo Azul, 9 miles upstream from mouth of Río Pirris, San José, Costa Rica. *Range.*—Known from vicinity of Pozo Azul, Costa Rica, only (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 349, Dec. 31, 1946).

Subfamily ATELINAE (spider-monkeys)

Genus ATELES[52] É. Geoffroy-Saint-Hilaire

1806. *Ateles* É. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, vol. 7, p. 262. (Type, *Simia paniscus* Linnaeus.)

1911. *Montaneia* Ameghino, Anal. Mus. Nac. Hist. Nat. Buenos Aires, ser. 3, vol. 13, p. 317. (Type, *Montaneia anthropomorpha* Ameghino (from an Indian grave in a cave near Sancti Spiritus, Cuba) = an *Ateles* probably brought from South America; see Miller, Smithsonian Misc. Coll., vol. 66, No. 13, Dec. 8, 1916.)

Ateles fusciceps robustus J. A. Allen*

1914. *Ateles robustus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 33, p. 652, Dec. 14, 1914.

1915, *Ateles dariensis* Goldman†, Proc. Biol. Soc. Washington, vol. 28, p. 101, Apr. 13, 1915. (Near head of Río Limón, Mount Pirre, Darién, eastern Panamá. Altitude 5,000 feet.)

1944. *Ateles fusciceps robustus* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 29, Nov. 2, 1944.

Type Locality.—Gallera, Department of Cauca, western Andes, Colombia. Altitude, 5,000 feet. *Range.*—Western cordillera of Andes from southwestern Colombia northward on west side of Río Cauca to eastern Panamá (Mount Pirre).

Ateles geoffroyi geoffroyi Kuhl*

1820. *Atele*[*s*] *geoffroyi* Kuhl, Beiträge zur Zoologie und vergleichenden Anatomie, Abth. 1, p. 26. (Printed also on same page as "*Ateles* Geoffroy. *mihi* species inedita.")

1820. *Ateles melanochir* Desmarest, Mammalogie, . . . , pt. 1, p. 76, [*in* Encyclopédie méthodique . . .]. (Unknown locality.)

1884. *Ateles geoffroyi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884. (Part.)

1944. *Ateles geoffroyi geoffroyi* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 30, Nov. 2, 1944.

Type Locality.—Unknown; restricted by Kellogg and Goldman (op. cit., p. 31) to San Juan del Norte (Greytown), Nicaragua. *Range.*—Coastal region bordering San Juan del Norte or Matina Bay, southeastern Nicaragua; probably ranging across through lowlands to Pacific coast.

Ateles geoffroyi vellerosus Gray*

1866. *Ateles vellerosus* Gray, Proc. Zool. Soc. London, 1865, pt. 3, No. 47, p. 773, April 1866.

1873. *Ateles neglectus* Reinhardt, Vid. Medd. Nat. For. Kjöbenhavn, ser. 3, vol. 4 (1872), Nos. 6–9, p. 150. (Mirador, Veracruz, México.)

1914. *Ateles tricolor* Hollister†, Proc. Biol. Soc. Washington, vol. 27, p. 141, July 10, 1914. (Hacienda Santa Efigenia, 8 miles north of Tapanatepec, southeastern Oaxaca, México.)

1944. *Ateles geoffroyi vellerosus* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 32, Nov. 2, 1944.

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[52] Revised by Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, pp. 1–45, Nov. 2, 1944.

Type Locality.—Mirador, about 15 miles northeast of Huatusco, Veracruz, México. Altitude, 2,000 feet. *Range.*—Unbroken forests of Veracruz and eastern San Luis Potosí and southeastward through Tabasco, across Isthmus of Tehuantepec in eastern Oaxaca to Honduras and El Salvador, except for highlands of Guatemala.

Ateles geoffroyi yucatanensis Kellogg and Goldman†*

1944. *Ateles geoffroyi yucatanensis* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 35, Nov. 2, 1944.

Type Locality.—Puerto Morelos, northeast coast of Quintana Roo, México. Altitude, 100 feet. *Range.*—Forests of Yucatán Peninsula, northeastern Guatemala, and probably adjoining parts of British Honduras; doubtless intergrading to southward with *vellerosus.*

Ateles geoffroyi pan Schlegel*

1876. *Ateles pan* Schlegel, Mus. Hist. Nat. Pays-Bas, Leiden, vol. 7, pt. 12 (Monogr. 40, Simiae), p. 180.

1944. *Ateles geoffroyi pan* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 36, Nov. 2, 1944.

Type Locality.—Cobán, Alta Verapaz, Guatemala. *Range.*—Mountains of central Guatemala; doubtless intergrades with *vellerosus.*

Ateles geoffroyi frontatus (Gray)*

1842. *Eriodes frontatus* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 10, No. 65, p. 256, December 1842.

1944. *Ateles geoffroyi frontatus* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 37, Nov. 2, 1944.

Type Locality.—"South America" (=harbor of Culebra, León=Culebra, Bahía de Culebra, Guanacaste, northwestern Costa Rica, fide Gray, *in* The zoology of the voyage of H.M.S. *Sulphur*, under the command of Capt. Sir E. Belcher, vol. 1, No. 1, Mammalia, pt. 1, p. 10, April 1843). *Range.*—Northwestern Costa Rica and extreme western and northern Nicaragua.

Ateles geoffroyi ornatus Gray*

1870. *Ateles ornatus* Gray, Catalogue of monkeys, lemurs and fruit-eating bats in the . . . British Museum, p. 44.

1944. *Ateles geoffroyi ornatus* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 39, Nov. 2, 1944.

Type Locality.—Unknown; assumed by Kellogg and Goldman to have been Cuabre, Talamanca region, Limón, southeastern Costa Rica. *Range.*—Eastern slope of Cordillera Central of Costa Rica; doubtless intergrading with *panamensis* on Pacific side of central mountain range.

Ateles geoffroyi panamensis Kellogg and Goldman†*

1944. *Ateles geoffroyi panamensis* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 40, Nov. 2, 1944.

Type Locality.—Cerro Bruja, about 15 miles southeast of Portobello, Province of Colón, Panamá. *Range.*—Forested regions of Panamá east of Canal Zone (Cordillera de San Blas), and west through Chiriquí to central western Costa Rica.

Ateles geoffroyi azuerensis Bole

1937. *Ateles azuerensis* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 149, Aug. 31, 1937.

1944. *Ateles geoffroyi azuerensis* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 41, Nov. 2, 1944.

Type Locality.—Altos Negritos, 10 miles east of Montijo Bay (part of the spur forming south drainage divide of Río Negro), Mariato Suay Lands, Azuero Peninsula, Veraguas, Panamá. Altitude, 1,500 feet. *Range.*—Forested mountains of Azuero Peninsula, Veraguas Province, Panamá, probably in deeper forests on both sides, but known only from western (Veraguas) side from vicinity of Ponuga southward. Possibly ranging west to Burica Peninsula on Panama-Costa Rican boundary.

Ateles geoffroyi grisescens Gray*

1866. *Ateles grisescens* Gray, Proc. Zool. Soc. London, 1865, pt. 3, p. 733, April 1866.

1944. *Ateles geoffroyi grisescens* Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 43, Nov. 2, 1944.

Type Locality.—Unknown. "Restricted" by Kellogg and Goldman (op. cit., p. 43) to Río Tuyra, Darién, southeastern Panamá. *Range.*—Presumably the valley of Río Tuyra and probably through Serranía del Sapo of extreme southeastern Panamá and Cordillera de Baudo of northwestern Colombia.

Ateles rufiventris Sclater

1872. *Ateles rufiventris* Sclater, Proc. Zool. Soc. London, 1872, pt. 2, p. 688, November 1872. (For status, see Kellogg and Goldman, Proc. U. S. Nat. Mus., vol. 96, p. 45, Nov. 2, 1944.)

1884. *Ateles rufiventris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1844.

Type Locality.—Río Atrato, northern Colombia. *Range.*—A specimen in the Leyden Museum is said to have been taken in Panamá (Elliot, A review of the Primates, vol. 2, p. 36, June 15, 1913).

Family CALLITHRICIDAE (marmosets)

Genus MARIKINA Lesson

1840. *Marikina* Lesson, Species des mammifères, bimanes et quadrumanes; suivi d'un mémoire sur les Oryctéropes, p. 199 (listed under synonymy of *Œdipus titi* Lesson [=*Simia œdipus* Linnaeus] in an erroneous combination with [*Midas*] *bicolor* Spix and the bibliographic references thereto. Type *Marikina bicolor* Lesson.)

Subgenus OEDIPOMIDAS Reichenbach

1862. *Œdipomidas* Reichenbach, Die vollständigste Naturgeschichte der Affen, p. 5. (Type, *Simia oedipus* Linnaeus, designated by Elliot, A review of the Primates, vol. 1, p. 213, June 15, 1913.)

Marikina geoffroyi (Pucheran)*

1823. *Midas Œdipus* (varietas) Spix, Simiarum et vespertilionum Brasiliensium, p. 30, pl. 23. ("Habitat, ut opinor, in provincia Guiana.")

1845. *Hapale geoffroyi* Pucheran, Rev. Mag. Zool., Paris, ser. 2, vol. 8, p. 336, September 1845.

1845. *Midas geoffroyi* I. Geoffroy-Saint-Hilaire, Arch. Mus. Hist. Nat., Paris, vol. 5, p. 579.

1862. *J[acchus] spixii* Reichenbach, Die vollständigste Naturgeschichte der Affen, p. 1, pl. 1, fig. 2. (Copied from Spix, pl. 23, with slight alterations; shows the characteristic head markings of the Panamá marmoset.)

1862. *Œ[dipomidas] geoffroyi* Reichenbach, Die vollständigste Naturgeschichte der Affen, p. 5.

1940. *Œdipomidas spixi* [sic] Cabrera, Ciencia, México, D. F., vol. 1, No. 9, p. 403, Nov. 1, 1940.

1949. *Marikina geoffroyi* Hershkovitz, Proc. U. S. Nat. Mus., vol. 98, p. 416, May 10, 1949.

Type Locality.—Panamá (restricted to Canal Zone, Panamá, by Hershkovitz, op. cit., p. 417). *Range.*—From La Vaca River, Coto region, on border of Panamá and Costa Rica (Carpenter, Journ. Mamm., vol. 16, No. 3, p. 171, Aug. 12, 1935) south through Panamá to northern Colombia.

Superfamily CERCOPITHECOIDEA (macaquelike Primates)

Family CERCOPITHECIDAE

Subfamily CERCOPITHECINAE (guenons)

Genus CERCOPITHECUS Linnaeus

1758. *Cercopithecus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 26. (Type, *Simia diana* Linnaeus. For use of *Cercopithecus* in place of *Lasiopyga* Illiger, 1811, see Opinion 104, International Commission of Zoological Nomenclature, Smithsonian Misc. Coll., vol. 73, No. 5, p. 25, Sept. 19, 1928.)

Cercopithecus aethiops sabaeus (Linnaeus)*

1766. *[Simia] sabaea* Linnaeus, Systema naturae, ed. 12, vol. 1, p. 38.

1851. *Cercopithecus callitrichus* I. Geoffroy-Saint-Hilaire, Catalogue méthodique de la collection des mammifères . . . du muséum . . . de Paris, p. 23. (Unknown [West Africa].)

1926. *Cercopithecus aethiops sabaeus* Schwarz, Zeitschr. Säug., Berlin, vol. 1, p. 34, Aug. 31, 1926.

Type Locality.—Cape Verde Islands; doubtless from Senegal (see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 47, p. 352, Feb. 6, 1925). *Range.*—Introduced and established on the islands of St. Kitts and Barbados, Lesser Antilles(Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 93, May 4, 1912).

Cercopithecus mona mona (Schreber)*

1774. *Simia mona* Schreber, Die Säugthiere . . . , Theil 1, Heft 2, pl. 15 (Heft 7, p. 97, vernacular name only, and description).

1777. *Cercopithecus mona* Erxleben, Systema regni animalis . . . , p. 30.

Type Locality.—"Barbary." *Range.*—Introduced and established on the islands of St. Kitts and Grenada, Lesser Antilles (Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 93, May 4, 1912).

Superfamily HOMINOIDEA (manlike Primates)

Family HOMINIDAE (men)

Genus HOMO Linnaeus

1758. *Homo* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 20. (Type, *Homo sapiens* Linnaeus.)

Homo sapiens sapiens Linnaeus* (Caucasian)

1758. [*Homo*] *sapiens* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 20.

Type Locality.—Upsala, Sweden. *Range.*—Now almost cosmopolitan.

Homo sapiens afer Linnaeus* (Negro)

1758. [*Homo sapiens*] *afer* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 22.

Type Locality.—Africa. *Range.*—Introduced and widely established in North America.

Homo sapiens americanus Linnaeus* (American Indian)

1758. [*Homo sapiens*] *americanus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 20.

Type Locality.—Eastern North America. *Range.*—North, Central, and South America.

Homo sapiens asiaticus Linnaeus* (Chinese, Japanese, etc.)

1758. [*Homo sapiens*] *asiaticus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 21.

Type Locality.—Asia. *Range.*—Now widely established in North America (see Grinnell, Univ. California Pub. Zool., vol. 40, No. 2, p. 119, Sept. 26, 1933).

Order EDENTATA [53]

Suborder XENARTHRA

Superfamily MEGALONYCHOIDEA (sloths)

Family MEGALONYCHIDAE (ground sloths)

Genus ACRATOCNUS Anthony

1916. *Acratocnus* Anthony, Ann. New York Acad. Sci., vol. 27, p. 195, Aug. 9, 1916. (Type, *Acratocnus odontrigonus* Anthony.)

Acratocnus odontrigonus Anthony

1916. *Acratocnus odontrigonus* Anthony, Ann. New York Acad. Sci., vol. 27, p. 195, Aug. 9, 1916.

Type Locality.—Cueva de la Ceiba, Hacienda Jobo, near Utuado, Puerto Rico. *Range.*—Known only from remains found in caves.

Acratocnus major Anthony

1918. *Acratocnus major* Anthony, Mem. Amer. Mus. Nat. Hist., new ser., vol. 2 (June), p. 412, Oct. 12, 1918.

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[53] For classification of living members of the order see Pocock, Proc. Zool. Soc. London, 1924, pt. 4, pp. 1030–1031, Dec. 31, 1924; and Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, pp. 69–75, Oct. 5, 1945.

Type Locality.—Cave on the property of Don Gervacio Torano, near Utuado, Puerto Rico. *Range.*—Known only from remains found in caves.

Acratocnus comes Miller†*

1929. *Acratocnus* (?) *comes* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 26, Mar. 30, 1929.

Type Locality.—Large cave near St. Michel, Haiti. *Range.*—Known only from remains found in caves and Indian deposits (see Miller, op. cit., pp. 25–26; and vol. 82, No. 5, p. 11, Dec. 11, 1929).

Genus PAROCNUS Miller

1929. *Parocnus* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 28, Mar. 30, 1929. (Type, *Parocnus serus* Miller.)

Parocnus serus Miller†*

1929. *Parocnus serus* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 29, Mar. 30, 1929.

Type Locality.—Large cave near St. Michel, Haiti. *Range.*—Known only from remains found in caves.

Superfamily MYRMECOPHAGOIDEA

Family MYRMECOPHAGIDAE

Genus MYRMECOPHAGA Linnaeus

1758. *Myrmecophaga* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 35. (Type, by subsequent selection, Fleming, The philosophy of zoology . . . , vol. 2, p. 194, May or June, 1822, *Myrmecophaga jubata* Linnaeus=*Myrmecophaga tridactyla* Linnaeus.)

1900. *Falcifer* Rehn, Amer. Nat., vol. 34, p. 576, July 1900. (Type, *Myrmecophaga jubata* Linnaeus=*Myrmecophaga tridactyla* Linnaeus.)

Myrmecophaga tridactyla centralis Lyon†*

1884, *Myrmecophaga jubata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884. (Part.)

1906. *Myrmecophaga centralis* Lyon, Proc. U. S. Nat. Mus., vol. 31, p. 570, Nov. 14, 1906.

1920. *Myrmecophaga tridactyla centralis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 64–65, Apr. 26, 1920.

Type Locality.—Pacuare, Limón, Costa Rica. *Range.*—Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 356, Dec. 31, 1946) and Panamá (Goldman, loc. cit.)

Genus TAMANDUA[54] Gray

1775. *Tamandua* Frisch, Das Natur-System der vierfüssigen Thiere . . . , p. 5. (Type, not designated. Included species: *Tamandua guacu* Frisch,

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[54] Revised by J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, pp. 385–398, Oct. 29, 1904. The generic name *Tamandua* is not available either from Rafinesque, Analyse de la nature . . . , p. 57, 1815 (*Tamandua* not differentiated from *Myrmecophaga*, and no included species), or from Gray, London Med. Repos., vol. 15, No. 88, p. 305, Apr. 1, 1821 (a vernacular name). A statistical analysis of taxonomic differences within the genus *Tamandua* has been published by Reeve, Proc. Zool. Soc. London, vol. 111, ser. A (Gen. and Exper.), pts. 3–4, pp. 279–302, Feb. 17, 1942.

T. urivau Frisch, and *T. minima* Frisch; see Palmer, North Amer. Fauna No. 23, p. 660, Jan. 23, 1904. Names applied to genera rejected, since Frisch is not consistently binomial; see Sherborn, Index animalium . . . , p. xxv, 1902; Thomas and Miller, Ann. Mag. Nat. Hist., ser. 7, vol. 16, pp. 461–464, October 1905; and Hershkovitz, Journ. Mamm., vol. 29, No. 3, p. 272, Aug. 31, 1948.)

1825. *Tamandua* Gray, Ann. Philos., new ser., vol. 10, p. 343, November 1825. (Type, *Myrmecophaga tamandua* Cuvier=*M. tetradactyla* Linnaeus; see Gray, London Med. Repos., vol. 15, No. 88, p. 305, Apr. 1, 1821.)

Tamandua tetradactyla mexicana (Saussure)*

1860. "*Myrmecophaga tamandua* (?), Desm. (Var. *mexicana* Sauss.)" Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 9, January 1860.

1884. *Myrmecophaga quadridactyla* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884. (Part.)

1889. *Myrmecophaga sellata* Cope, Amer. Nat., vol. 23, p. 133, February 1889. (Honduras. Regarded as valid by Lönnberg, Arkiv för Zool., vol. 29A, No. 19, p. 27, Aug. 9, 1937; and as probably identical with *mexicana* by Reeve, Proc. Zool. Soc. London, vol. 111, ser. A (Gen. and Exper.), pts. 3–4, p. 301, Feb. 17, 1942.)

1904. *Tamandua tetradactyla tenuirostris* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 394, Oct. 29, 1904. (Pasa Nueva, Veracruz, México.)

1906. *Tamandua tetradactyla mexicana* J. A. Allen, Proc. Biol. Soc. Washington, vol. 19, p. 200, Dec. 31, 1906.

Type Locality.—Tabasco, México. *Range.*—From northern Veracruz, Tabasco and Isthmus of Tehuantepec, México, south through Guatemala and British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. No. 26, pp. 29–30, July 15, 1935; Lönnberg, Arkiv för Zool., vol. 29A, No. 19, pp. 25–27, Aug. 9, 1937; and Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 568, July 10, 1951) to central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 149, May 29, 1942).

Tamandua tetradactyla chiriquensis J. A. Allen*

1904. *Tamandua tetradactyla chiriquensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 395, Oct. 29, 1904.

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—From Nicaragua (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 648, Oct. 13, 1908) south through Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 355, Dec. 31, 1946) and Panamá to eastern Darién (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 62–64, Apr. 26, 1920). Recorded also from San José Island, Archipiélago de las Perlas, Golfo de Panamá (Kellogg, Smithsonian Misc. Coll., vol. 106, No. 7, pp. 2–3, July 18, 1946).

Genus CYCLOPES Gray

1821. *Cyclopes* Gray, London Med. Repos., vol. 15, p. 305, (Type, *Myrmecophaga didactyla* Linnaeus. For use of *Cyclopes* in place of *Cyclothurus* Lesson, Nouveau tableau du règne Animal, . . . mammifères, p. 152, 1842, see Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 191, February 1895; Palmer, Proc. Biol. Soc. Washington, vol. 13, p. 72, Sept. 28, 1899.)

Cyclopes didactylus dorsalis (Gray)*

1865. *Cyclothurus dorsalis* Gray, Proc. Zool. Soc. London, 1865, pt. 2, p. 385, pl. 19, October 1865.

1884. *Cycloturas didactylus* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 587, Nov. 29, 1884. (Part.)

1900. *C[yclopes] d[idactylus] dorsalis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 6, p. 302, September 1900.

Type Locality.—Costa Rica (Restricted to Orosi near Cartago, Cartago, Costa Rica, by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 354, Dec. 31, 1946). *Range.*—From Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 149, May 29, 1942) south through Nicaragua (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 648, Oct. 13, 1908), Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 354, Dec. 31, 1946) and Panamá to Canal Zone (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 61–62, Apr. 26, 1920).

Cyclopes didactylus mexicanus Hollister†*

1914. *Cyclopes mexicanus* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 210, Oct. 31, 1914.

1952. *Cyclopes didactylus mexicanus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 24, p. 316, Nov. 21, 1952.

Type Locality.—Tehuantepec, Oaxaca, México. *Range.*—Oaxaca, southern Veracruz, and Tabasco to Chiapas, México.

Superfamily BRADYPODOIDEA

Family BRADYPODIDAE (sloths)

Genus BRADYPUS Linnaeus (three-toed sloths)

1758. *Bradypus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 34. (Type, *Bradypus tridactylus* Linnaeus.)

Bradypus griseus griseus (Gray)*

1871. *Arctopithecus griseus* Gray, Ann. Mag. Nat. Hist., ser. 4, vol. 7, p. 302, April 1871.

1884. *Bradypus infuscatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884. (Not of Wagler, 1831.)

1891. *Bradypus griseus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 216, Apr. 17, 1891.

Type Locality.—Cordillera de Chucu, Veraguas, Panamá (see Alston, Mammalia, pp. 183–184, December 1880, *in* Godman and Salvin, Biologia Centrali-Americana; . . .). *Range.*—From Canal Zone in Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 57, April 26, 1920) northwest to Juan Viñas and San Carlos in Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 352, Dec. 31, 1946).

Bradypus griseus castaneiceps (Gray)*

1871. *Arctopithecus castaneiceps* Gray, Proc. Zool. Soc. London, 1871, pt. 2, p. 444, August 1871.

1880. *Bradypus castaneiceps* Alston, Mammalia, vol. 1, p. 184, December 1880, *in* Godman and Salvin, Biologia Centrali-Americana; . . . .

1884. *Bradypus castaneiceps* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884.

1946. *Bradypus griseus castaneiceps* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 352, Dec. 31, 1946.

Type Locality.—Woods surrounding Javali gold mine in Chontales District, Nicaragua. Altitude, 2,000 feet. *Range.*—From Jiménez, northeastern Costa Rica, north through lowlands of Nicaragua to Patuca in eastern Honduras.

Bradypus griseus ignavus Goldman†*

1913. *Bradypus ignavus* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 1, Feb. 28, 1913.

1952. *Bradypus griseus ignavus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 24, p. 315, Nov. 21, 1952.

Type Locality.—Marraganti (about 2 miles above Real de Santa María), near head of tidewater on Río Tuyra, Darién, Eastern Panamá. *Range.*—Eastern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 58, Apr. 26, 1920).

Genus CHOLOEPUS Illiger (two-toed sloths)

1811. *Choloepus* Illiger, Prodromus systematis Mammalium et Avium . . . , p. 108. (Type, *Bradypus didactylus* Linnaeus.)

Choloepus hoffmanni Peters*

1858. *Choloepus hoffmanni* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1858, p. 128.

1884. *Cholopus hoffmani* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884.

Type Locality.—Costa Rica (restricted to Escazú, San José, Costa Rica, by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 353, Dec. 31, 1946). *Range.*—From Nicaragua (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 648, Oct. 13, 1908) southward through Costa Rica (Goodwin, loc. cit.) and Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 59–60, Apr. 26, 1920) to Colombia. Vertical range from near sea level to 6,900 feet at Bóquete, Panamá (Enders, Journ. Mamm., vol. 21, No. 1, p. 5, Feb. 15, 1940).

Superfamily DASYPODOIDEA (armadillos)

Family DASYPODIDAE

Subfamily CABASSOUINAE

Genus CABASSOUS McMurtrie

1831. *Cabassous* McMurtrie, The animal kingdom . . . by the Baron Cuvier, vol. 1, p. 164. (Type, *Dasypus unicinctus* Linnaeus. For use of *Cabassous* in place of the preoccupied *Xenurus* Wagler, Natürliches System . . . , p. 36, August 1830, see Palmer, Proc. Biol. Soc. Washington, vol. 13, p. 71, Sept. 28, 1899.)

Cabassous centralis (Miller)†*

1896. *X[enurus] hispidus* True, Proc. U. S. Nat. Mus., vol. 18 (1895), p. 345, July 8, 1896. (Not of Burmeister, 1854.)

1899. *Tatoua (Ziphila) centralis* Miller, Proc. Biol. Soc. Washington, vol. 13, p. 4, Jan. 31, 1899.

1899. *C[abassous] centralis* Palmer, Proc. Biol. Soc. Washington, vol. 13, p. 72, Sept. 28, 1899.

Type Locality.—Chamelecón, Cortés, Honduras. *Range.*—Honduras, Costa Rica (Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 14, Oct. 8, 1943; Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 350, Dec. 31, 1946), and western Panamá to Canal Zone (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 68, Apr. 26, 1920).

Subfamily DASYPODINAE

Genus DASYPUS Linnaeus (nine-banded armadillos)

1758. *Dasypus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 50. (Type, by tautonymy, *Dasypus novemcinctus* Linnaeus. For use of *Dasypus* in place of *Tatu* Blumenbach, Handbuch der Naturgeschichte, vol. 1, p. 73, 1779, see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 141, Mar. 22, 1911.)

Dasypus novemcinctus mexicanus Peters*

1864. *Dasypus novemcinctus* var. *mexicanus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 180.

1905. *[Tatu novemcinctum] mexicanum* V. Bailey, North Amer. Fauna No. 25, p. 52, footnote, Oct. 24, 1905. (Type Locality for *mexicanus* fixed at Colima, México. Untenable.)

1905. *Tatu novemcinctum texanum* V. Bailey†, North Amer. Fauna No. 25, p. 52, Oct. 24, 1905. (Brownsville, Cameron County, Tex.)

1917. *Dasypus cucurbitinus* Gaumer, Monografía de los mamíferos de Yucatán, p. 21. (In synonymy of *Dasypus novemcinctus.*)

1920. *D[asypus] novemcinctus mexicanus* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 66, Apr. 24, 1920.

Type Locality.—Matamoros, Tamaulipas, México (see Hollister, Journ. Mamm., vol. 6, No. 1, p. 60, Feb. 9, 1925). *Range.*—From Chase and Sumner Counties in southeastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 87, September 1944) south through northeastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 131, July 1939), Texas (Kalmbach, The armadillo: Its relation to agriculture and game (Texas Game, Fish and Oyster Comm.), map p. 5, 1943), Coahuila and Tamaulipas (Dice, Univ. Michigan Studies, Sci. Ser., vol. 12, p. 256, 1937) to San Luis Potosí, México (J. A. Allen, Bull. Mus. Comp. Zool., vol. 8, No. 9, p. 189, March 1891); eastward to western Arkansas (Dellinger and Black, Journ. Mamm., vol. 21, No. 2, p. 190, May 16, 1940) and Florida parishes east of Mississippi River in Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 253, Nov. 22, 1943) and southeastern Mississippi (Fitch and Newman, Journ. Mamm., vol. 33, No. 1, pp. 21–37, Feb. 18, 1952); and westward to southeastern New Mexico (Taber, Journ. Mamm., vol. 20, No. 4, p. 493, Nov. 14, 1939). Armadillos that presumably escaped from captivity recorded in Florida (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936),

p. 123, 1937). For extension of range see also Fitch, Goodrum, and Newman (Journ. Mamm., vol. 33, No. 1, pp. 21–37, Feb. 18, 1952).

Dasypus novemcinctus fenestratus Peters*

1864. *Dasypus fenestratus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 180.

1911. *Dasypus novemcinctus fenestratus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 199, July 1911.

Type Locality.—Costa Rica. *Range.*—From Jalisco (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 190, Dec. 10, 1890), Colima (Hollister, Journ. Mamm., vol. 6, No. 1, p. 60, Feb. 9, 1925), Michoacán (Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 22, p. 470, Dec. 27, 1949), Oaxaca (Hooper, Journ. Mamm., vol. 28, No. 1, p. 56, Feb. 17, 1947) and southeastern Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 238, Sept. 28, 1950), southward through eastern Honduras (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 66, Apr. 26, 1920), Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 58, Dec. 12, 1934), Nicaragua (J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 649, Oct. 13, 1908), Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 350, Dec. 31, 1946), and western Panamá Canal Zone (Goldman, op. cit., pp. 66–67, Apr. 26, 1920).

Dasypus novemcinctus hoplites G. M. Allen*

1911. *Dasypus novemcinctus hoplites* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 195, July 1911.

Type Locality.—Hills back of Gouyave, Grenada, Lesser Antilles. *Range.*—Known from Grenada only (see also G. M. Allen, Extinct and vanishing mammals of the Western Hemisphere . . . , pp. 34–35, Dec. 11, 1942).

Order LAGOMORPHA [55]

Family OCHOTONIDAE (pikas)

Genus OCHOTONA Link

1795. *Ochotona* Link, Beyträge zur Naturgeschichte, vol. 1, pt. 2, p. 74. (Type, *Lepus ogotona* Pallas.)

Subgenus PIKA [56] Lacépède

1799. *Pika* Lacépède, Tableau des divisions, sous-divisions, ordres et genres des mammifères, p. 9. (Published as a supplement to Discours d'ouverture et de clôture du cours d'histoire naturelle . . . Type, *Lepus alpinus* Pallas.)

1904. *Pika* Lyon, Smithsonian Misc. Coll., vol. 45, p. 438, June 15,1904.

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[55] Families and genera revised by Lyon, Smithsonian Misc. Coll., vol. 45, pp. 321–447, June 15, 1904. For status of groups see Gidley, Science, new ser., vol. 36, pp. 285–286, Aug. 30, 1912. See also Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, pp. 196–197, Oct. 5, 1945.

[56] Revised by A. H. Howell, North Amer. Fauna No. 47 (August 21), pp. 1–57, Sept. 23, 1924. For revision of geographic ranges and marginal records, see Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 10, pp. 125–133, Dec. 15, 1951.

Ochotona collaris (Nelson)†*

1893. *Lagomys collaris* Nelson, Proc. Biol. Soc. Washington, vol. 8, p. 117, Dec. 21, 1893.

1897. [*Ochotona*] *collaris* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 648.

Type Locality.—Near head of Tanana River, about 200 miles south of Fort Yukon, Alaska. *Range.*—From south-central Alaska (Chitina River Glacier, Mount McKinley, Seward Creek, Tanana River, White Pass); central and southern Yukon (Ogilvy Mountains), Conrad, Teslin Lake, Canol Road (Ross River, Mile 96; Macmillan Pass, Mile 282); east to head of Carcajou River, Canol Road, Mile 111E, Mackenzie District; south to Bennett, Tagish Lake, in extreme northwestern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 94, Jan. 24, 1947).

Ochotona princeps princeps (Richardson)*

1828. *Lepus* (*Lagomys*) *princeps* Richardson, Zool. Journ., vol. 3, p. 520.

1897. [*Ochotona*] *princeps* Trouessart, Catalogus Mammalium . . . fasc. 3, p. 648.

Type Locality.—Headwaters of Athabasca River, near Athabasca Pass, Alberta, Canada. *Range.*—Rocky Mountains, from eastern British Columbia (headwaters South Pine River) and western Alberta (Muskeg Creek, about 60 miles north of Jasper House), Jasper National Park, southward along main divide to Morrissey in southeastern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 95, Jan. 24, 1947), western Montana and northern Idaho (Bitterroot Mountains).

Ochotona princeps lutescens A. H. Howell†*

1919. *Ochotona princeps lutescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 105, May 20, 1919.

Type Locality.—Mount Inglesmaldie, near Banff, Alberta, Canada. Altitude, about 8,000 feet. *Range.*—Rocky Mountains in Banff National Park, Alberta (Banff; Boom Lake 27 miles west of Banff, 6,500 feet; Bryant Creek; Cascade Basin, 7,000 feet; Mistaya Creek, Banff-Jasper Highway, 6,400 feet; south to Mount Forget-me-not, 50 to 75 miles southwest of Calgary); and Snake Indian River and Wall Pass Trail in eastern part of Jasper National Park (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 96, Jan. 24, 1947).

Ochotona princeps levis Hollister†*

1912. *Ochotona levis* Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 57, Apr. 13, 1912.

1924. *Ochotona princeps levis* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 16, Sept. 23, 1924.

Type Locality.—Chief Mountain (Waterton) Lake, Flathead County, Mont. *Range.*—Mountains of southern Alberta and northern Montana east of main divide of Rocky Mountains, from Waterton Lakes National Park to Belt Mountains of Montana (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 96, Jan. 24, 1947).

Ochotona princeps cuppes Bangs*

1899. *Ochotona cuppes* Bangs, Proc. New England Zool. Club, vol. 1, p. 40, June 5, 1899.

1924. *Ochotona princeps cuppes* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 27, Sept. 23, 1924.

Type Locality.—Monashee Divide, Gold Range, British Columbia, Canada. Altitude, 4,000 feet. *Range.*—Southeastern interior of British Columbia, from western part of Columbia River Valley (Rossland and Trail region, Rossland, 4,000 feet; Green Mountain, 6,000 feet; Old Glory Mountain, 7,000 feet), Monashee Divide in Gold Range, and Nelson, north to glacier in Selkirk Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 95, Jan. 24, 1947); southward to Cabinet Mountains in extreme northern Idaho, and to Round Top Mountain and Pass Creek Pass in northeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 379, Apr. 9, 1948).

Ochotona princeps septentrionalis Cowan and Racey

1947. *Ochotona princeps septentrionalis* Cowan and Racey, Canadian Field-Nat., vol. 60, No. 5 (September–October 1946), p. 102, Apr. 22, 1947.

Type Locality.—Itcha Mountains, British Columbia. Altitude, 6,500 feet. *Range.*—Known from type locality only.

Ochotona princeps brooksi A. H. Howell†*

1924. *Ochotona princeps brooksi* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 30, Sept. 23, 1924.

Type Locality.—Sicamous, British Columbia, Canada. *Range.*—Interior of southern British Columbia, from Shuswap Lake west to Mount McLean and McGillivray Creek, Lillooet District; limits of range unknown.

Ochotona princeps fenisex Osgood*

1863. *Lagomys minimus* Lord, Proc. Zool. Soc. London, 1863, pt. 1, p. 96, May 1863. (Not of Schinz, 1821.)

1913. *Ochotona fenisex* Osgood, Proc. Biol. Soc. Washington, vol. 26, p. 80, Mar. 22, 1913. (Substitute for *minimus* Lord.)

1924. *Ochotona princeps fenisex* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 28, Sept. 23, 1924.

Type Locality.—Ptarmigan Hill, near head of Ashnola River, east side of Cascade Range, British Columbia, Canada. Altitude, about 7,000 feet. *Range.*—Interior ranges on eastern side of Cascade Mountains from Skamania and Yakima Counties in Washington northward in British Columbia to upper end of Okanagan Lake and to near Hedley and Tulameen in Similkameen River Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 95, Jan. 24, 1947).

Ochotona princeps brunnescens A. H. Howell†*

1919. *Ochotona fenisex brunnescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 108, May 20, 1919.

1924. *Ochotona princeps brunnescens* A. H. Howell, North Amer. Fauna No. 47 (August 31), p. 31, Sept. 23, 1924.

Type Locality.—Lake Keechelus, Kittitas County, Wash. *Range.*—Cascade Mountains from Mount McLoughlin and Crater Lake in southwestern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 116, August 29, 1936), northward with possibly interrupted range to Mount Hood, Oreg.; along Cascades in Washington (Dalquest, Univ. Kans. Publ. Mus. Nat. Hist., vol. 2, p. 380, Apr. 9, 1948) to Lihumitson Park, Tami Hy Creek, Chilliwack, Vancouver, and Hope in southwestern British Columbia (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 95, Jan. 24, 1947); and in Alta Lake region northwest of Fraser River (Racey and Cowan, Prov. British Columbia, Rep. Prov. Mus. Nat. Hist. for 1935, p. H28, 1936).

Ochotona princeps fumosa A. H. Howell†*

1919. *Ochotona fenisex fumosa* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 109, May 20, 1919.

1924. *Ochotona princeps fumosa* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 33, Sept. 23, 1924.

Type Locality.—Permilia Lake, west base of Mount Jefferson, Marion County, Oreg. *Range.*—Western slopes of Cascade Mountains in Oregon, from west slope of Mount Jefferson on upper Clackamas River south at least to Three Sisters in Lane County; also mountains near Pauline Lake, Crook County.

Ochotona princeps jewetti A. H. Howell†*

1919. *Ochotona schisticeps jewetti* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 109, May 20, 1919.

Type Locality.—Head of Pine Creek, near Cornucopia, south slope of Wallowa Mountains, Baker County, Oreg. *Range.*—Wallowa Mountains, Strawberry Mountains, and southern portion of Blue Mountains, northeastern Oregon. Vertical range approximately from 5,000 to 10,000 feet.

Ochotona princeps taylori Grinnell*

1912. *Ochotona taylori* Grinnell, Proc. Biol. Soc. Washington, vol. 25, p. 129, July 31, 1912.

1924. *Ochotona schisticeps taylori* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 39, Sept. 23, 1924.

Type Locality.—Warren Peak, Warner Mountains, Modoc County, Calif. Altitude, 9,000 feet. *Range.*—Portions of Modoc plateau of northeastern California, west at north from Warner Mountains, Modoc County, to Goose Nest Mountains, Siskiyou County, and south to near Termo, Lassen County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 197, Sept. 26, 1933); and northward in Oregon to northern end of Steens Mountains (V. Bailey, North Amer. Fauna No. 55 (June), p. 113, Aug. 27, 1936).

Ochotona princeps schisticeps (Merriam)†*

1889. *Lagomys schisticeps* Merriam, North. Amer. Fauna No. 2, p. 11, Oct. 30, 1889.

1897. *Ochotona schisticeps* Merriam, Mazama, Portland, vol. 1, p. 223, October 1897.

1936. *Ochotona princeps schisticeps* A. H. Miller, Journ. Mamm., vol. 17, No. 2, p. 175, May 18, 1936. (*princeps* and *schisticeps* regarded as conspecific by Borell, Journ. Mamm., vol. 12, No. 3, pp. 307–308, Aug. 24, 1931.)

Type Locality.—Donner [= Summit], Placer County, Calif. *Range.*—Boreal Zones of northern Sierra Nevada, from Mount Shasta, Siskiyou County, south to Donner Pass, Placer County, Calif.; vertical range, from 4,800 feet (Battle Creek Meadows, Tehama County) up at least to 9,500 feet on Lassen Peak and to nearly 10,000 feet on Mount Shasta (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 197, Sept. 26, 1933); and northwestern Nevada east to Pine Forest Mountains (Hall, Mammals of Nevada, p. 590, July 1, 1946).

Ochotona princeps muiri Grinnell and Storer*

1916. *Ochotona schisticeps muiri* Grinnell and Storer, Univ. California Publ. Zool., vol. 17, No. 1, p. 6, Aug. 23, 1916.

1934. *Ochotona princeps muiri* Hall, Proc. Biol. Soc. Washington, vol. 47, p. 103, June 13, 1934.

Type Locality.—Near Ten Lakes, Yosemite National Park, Tuolumne County, Calif. Altitude, 9,300 feet. *Range.*—Central Sierra Nevada from Mount Tallac, Eldorado County, south at least to vicinity of Mammoth Pass, Mono County, Calif.; vertical range, from 7,700 feet up to 12,120 feet (both extremes within Yosemite National Park); zonal range, chiefly Hudsonian, but locally also Canadian and Arctic-Alpine (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 198, Sept. 26, 1933); and Sierra Nevada in region of Lake Tahoe, Nev. (Hall, Mammals of Nevada, p. 593, July 1, 1946).

Ochotona princeps albata Grinnell*

1912. *Ochotona albatus* Grinnell, Univ. California Publ. Zool., vol. 10, No. 2, p. 125, Jan. 31, 1912.

1924. *Ochotona schisticeps albata* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 44, Sept. 23, 1924.

Type Locality.—Cottonwood Lakes, near Mount Whitney, Sierra Nevada, Inyo County, Calif. Altitude, 11,000 feet. *Range.*—Southern Sierra Nevada south from vicinity of Kearsarge Pass, in Inyo and Fresno Counties, to near Mineral King and to Cottonwood Pass (near Whitney Meadows), in Tulare County; vertical range, from 7,500 feet (Little Onion Valley, Inyo County) up to at least 12,000 feet (near Mount Langley); zonal range, chiefly Arctic-Alpine and Hudsonian, locally in Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 198, Sept. 26, 1933).

Ochotona princeps sheltoni Grinnell*

1918. *Ochotona schisticeps sheltoni* Grinnell, Univ. California Publ. Zool., vol. 17, No. 14, p. 429, Apr. 25, 1918.

1946. *Ochotona princeps sheltoni* Hall, Mammals of Nevada, p. 592, July 1, 1946.

Type Locality.—Near Big Prospector Meadow, White Mountains, Mono County, Calif. Altitude, 11,000 feet. *Range.*—White Mountains in Mono and Inyo Counties, Calif., and Mineral County, Nev.; vertical range, 8,000 to 13,000 feet; zonal range, Transition to Canadian.

Ochotona princeps tutelata Hall*

1934. *Ochotona princeps tutelata* Hall, Proc. Biol. Soc. Washington, vol. 47, p. 103, June 13, 1934.

Type Locality.—Greenmonster Canyon, Monitor Mountains, Nye County, Nev. Altitude, 8,150 feet. *Range.*—Desatoya, Shoshone, Toquima, and Monitor Ranges in central Nevada (Hall, Mammals of Nevada, p. 591, July 1, 1946).

Ochotona princeps nevadensis A. H. Howell†*

1919. *Ochotona uinta nevadensis* A. H. Howell, Proc. Biol, Soc. Washington, vol. 32, p. 107, May 20, 1919.

1924. *Ochotona princeps nevadensis* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 21, Sept. 23, 1924.

Type Locality.—Ruby Mountains, southwest of Ruby Valley Post Office, Elko County, Nev. Altitude, 10,500 feet. *Range.*—Known from Ruby Mountains, Nev.

Ochotona princeps clamosa Hall and Bowlus

1938. *Ochotona princeps clamosa* Hall and Bowlus, Univ. California Publ. Zool., vol. 42, No. 6, p. 335, Oct. 12, 1938.

Type Locality.—North rim of Copenhagen Basin, Bear Lake County, Idaho. Altitude, 8,400 feet. *Range.*—Bear River (Wasatch) Range of southeastern Idaho (Davis, The Recent mammals of Idaho, p. 350, Apr. 5, 1939).

Ochotona princeps goldmani A. H. Howell†*

1924. *Ochotona schisticeps goldmani* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 40, Sept. 23, 1924.

1938. *Ochotona princeps goldmani* Hall and Bowlus, Univ. California Publ. Zool., vol. 42, No. 6, p. 337, Oct. 12, 1938.

Type Locality.—Echo Crater, 20 miles southwest of Arco, Snake River Desert, Craters of the Moon National Monument, Butte County, Idaho. *Range.*—Known only from Echo Crater and Fissure Crater, Craters of the Moon National Monument, Butte and Blaine Counties, Idaho.

Ochotona princeps howelli Borell*

1931. *Ochotona princeps howelli* Borell, Journ. Mamm., vol. 12, No. 3, p. 306, Aug. 24, 1931.

Type Locality.—Summit of Smith Mountain, near head of Bear Creek, south end of Seven Devils Mountains, Adams County, Idaho. Altitude, 7,500 feet. *Range.*—Known only from Smith Mountain and Blake Lake, Seven Devils Mountains, Adams County, in west-central Idaho.

Ochotona princeps lemhi A. H. Howell†*

1919. *Ochotona uinta lemhi* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 106, May 20, 1919.

1924. *Ochotona princeps lemhi* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 16, Sept. 23, 1924.

Type Locality.—Timber Creek, Lemhi Mountains, 10 miles west of Junction, Lemhi County, Idaho. *Range.*—Mountains of south-central Idaho—the Lemhi, Lost River, Salmon River, and Sawtooth Ranges; eastward to Beaverhead Mountains, east of Leadore; northern limits of range imperfectly known (Davis, The Recent mammals of Idaho, p. 348, Apr. 5, 1939).

Ochotona princeps ventorum A. H. Howell†*

1919. *Ochotona uinta ventorum* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 106, May 20, 1919.

1924. *Ochotona princeps ventorum* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 18, Sept. 23, 1924.

Type Locality.—Fremont Peak, Wind River Mountains, Fremont County, Wyo. Altitude, 11,500 feet. *Range.*—Wyoming, Salt River (Hall and Bowlus, Univ. California Publ. Zool., vol. 42, No. 6, p. 337, Oct. 12, 1938), Gros Ventre, Wind River, Teton, Absaroka, and Bighorn Ranges, Wyo., north to Beartooth and Absaroka Ranges in southern Montana.

Ochotona princeps uinta Hollister†*

1912. *Ochotona uinta* Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 58, Apr. 13, 1912.

1924. *Ochotona princeps uinta* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 19, Sept. 23, 1924.

Type Locality.—Uinta Mountains, near head of east fork of Bear River, Summit County, Utah. *Range.*—Uinta and Wasatch Ranges, in Utah.

Ochotona princeps moorei Gardner†*

1950. *Ochotona princeps moorei* Gardner, Journ. Washington Acad. Sci., vol. 40, No. 10, p. 344, Oct. 23, 1950.

Type Locality.—One mile northeast of Baldy Ranger Station, Manti National Forest, Sanpete County, Utah. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Ochotona princeps cinnamomea J. A. Allen*

1905. *Ochotona cinnamomea* J. A. Allen, Mus. Brooklyn Inst. Science Bull., vol. 1, p. 121, Mar. 31, 1905.

1924. *Ochotona schisticeps cinnamomea* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 46, Sept. 23, 1924.

1945. *Ochotona princeps cinnamomea* Long, Journ. Mamm., vol. 26, No. 4, p. 179, Feb. 12, 1945.

Type Locality.—Briggs [=Britts] Meadows, 5 miles west of Puffer Lake, Beaver Range, Beaver County, Utah. Altitude, 11,000 feet (Hardy, Journ., Mamm, vol. 26, No. 4, p. 432, Feb. 12, 1945). *Range.*—Beaver Range, Utah.

Ochotona princeps fuscipes A. H. Howell†*

1919. *Ochotona schisticeps fuscipes* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 110, May 20, 1919.

1945. *Ochotona princeps fuscipes* Long, Journ. Mamm., vol. 26, No. 4, p. 179, Feb. 12, 1945.

Type Locality.—Brian Head, Parowan Mountains, Iron County, Utah. *Range.*—Markagunt Plateau, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 70, Aug. 10, 1952).

Ochotona princeps utahensis Hall and Hayward

1941. *Ochotona princeps utahensis* Hall and Hayward, Great Basin Naturalist, vol. 2, No. 2, p. 107, June 30, 1941.

Type Locality.—Two miles west of Deer Lake, Garfield County, Utah. *Range.*—Boulder Mountain area, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 72, Aug. 10, 1952).

Ochotona princeps figginsi J. A. Allen*

1912. *Ochotona figginsi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 103, May 28, 1912.

1924. *Ochotona princeps figginsi* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 21, Sept. 23, 1924.

Type Locality.—Pagoda Peak, Rio Blanco County, Colo. *Range.*—Western Colorado, from Gunnison County north to Hahn's Peak in eastern Routt County and to Mount Zirkel on Continental Divide; and to Bridger Peak, Wyo.

Ochotona princeps saxatilis Bangs*

1884. *Lagomys princeps* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 600, Nov. 29, 1884. (Part.)

1899. *Ochotona saxatilis* Bangs, Proc. New England Zool. Club, vol. 1, p. 41, June 5, 1899.

1924. *Ochotona princeps saxatilis* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 23, Sept. 23, 1924.

Type Locality.—Montgomery, near Mount Lincoln, Park County, Colo. *Range.*—Easterly mountain ranges of middle Colorado from Medicine Bow Range south to Sangre de Cristo Range; northward to Medicine Peak, Wyo.; westward in southern Colorado to San Juan Range and to La Sal Mountains in eastern Utah; vertical range approximately from 9,000 to 13,500 feet.

Ochotona princeps nigrescens V. Bailey†*

1913. *Ochotona nigrescens* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 133, May 21, 1913.

1924. *Ochotona princeps nigrescens* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 26, Sept. 23, 1924.

Type Locality.—Goat Peak at head of Santa Clara Creek, Jemez Mountains, Sandoval County, N. Mex. Altitude, 10,000 feet. *Range.*—Jemez Mountains, N. Mex., north to southern end of San Juan Mountains, Colo.

Ochotona princeps incana A. H. Howell†*

1919. *Ochotona saxatilis incana* A. H. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 107, May 20, 1919.

1924. *Ochotona princeps incana* A. H. Howell, North Amer. Fauna No. 47 (August 21), p. 25, Sept. 23, 1924.

Type Locality.—Pecos Baldy, Santa Fe County, N. Mex. Altitude, 12,000 feet. *Range.*—High mountains of northern New Mexico, from Pecos Baldy north to Culebra Mountains (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 64, Mar. 1, 1932) and probably to Sierra Blanca, Colo.

Ferrari Perez

Family LEPORIDAE (hares and rabbits)

Subfamily PALAEOLAGINAE[57]

Genus ROMEROLAGUS Merriam

1896. *Romerolagus* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 173, Dec. 29, 1896. (Type, *Romerolagus nelsoni* Merriam = *Lepus diazi* Diaz.)

Romerolagus diazi (~~Diaz~~)* (volcano rabbit)

1893. *Lepus diazi* Diaz, Catálogo, Comisión Geográfico-Exploradora de la República Mexicana, Exposición Internacional Colombina de Chicago en 1893, pl. 42, March 1893.

1896. *Romerolagus nelsoni* Merriam†, Proc. Biol. Soc. Washington, vol. 10, p. 173, Dec. 29, 1896. (West slope of Volcán de Popocatépetl, State of México. Altitude, 11,000 feet.)

1911. *Romerolagus diazi* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 228, Oct. 31, 1911.

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[57] See Dice, Journ. Mamm., vol. 10, No. 4, pp. 340, 343, Nov. 11, 1929.

Type Locality.—Eastern slope of Mount Iztaccíhuatl, Puebla, México. *Range.*—Middle slopes of Popocatépetl and Iztaccíhuatl, mainly on north and west sides, fronting Valley of México; vertical range from about 10,000 to 12,000 feet; zonal range Canadian. Recorded also from Monte Río Frio, 45 kilometers east-southeast of city of México (Davis, Journ. Mamm., vol. 25, No. 4, p. 401, Dec. 12, 1944).

Subfamily LEPORINAE

Genus LEPUS[58] Linnaeus

1758. *Lepus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 57. (Type, *Lepus timidus* Linnaeus.)

1904. *Lagos* Palmer,[59] North Amer. Fauna No. 23, p. 361, Jan. 23, 1904. (Type, *Lepus arcticus* Ross.)

1904. *Poecilolagus* Lyon, Smithsonian Misc. Coll., vol. 45, p. 395, June 15, 1904. (Type, *Lepus americanus* Erxleben.)

1911. *Boreolepus* Barrett-Hamilton, A history of British mammals, . . . , pt. 9, p. 160, Nov. 17, 1911. (Type, *Lepus groenlandicus* Rhoads. For status see Sutton and Hamilton, Mem. Carnegie Mus., vol. 12, pt. 2, sect. 1, p. 78, Aug. 4, 1932; and also A. H. Howell, Journ. Mamm., vol. 17, No. 4 p. 331, Nov. 16, 1936.)

Subgenus LEPUS Linnaeus

Lepus arcticus arcticus[60] Ross* (arctic hare)

1819. *Lepus arcticus* Ross, A voyage of discovery . . . in H.M.S. *Isabella* and *Alexander* . . . , ed. 2 (8vo.), vol. 2, Appendix 4, p. 151.

1819. *Lepus glacialis* Leach, *in* Ross, A voyage of discovery . . . in H. M. S. *Isabella* and *Alexander* . . . ed. 2 (8vo.), vol. 2, Appendix 4, p. 170.

1884. *Lepus timidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884. (Not of Linnaeus, 1758.)

1896. *Lepus arcticus* Rhoads, Amer. Nat., vol. 30, p. 235, March 1896.

Type Locality.—Possession Bay, Bylot Island, lat. 73°27′ N., Franklin District, Northwest Territories, Canada. (See Ross, op. cit., orig. ed. (4to.), 1819, p. 179; and ed. 2 (8vo.), 1819, vol. 2, p. 151.) *Range.*—From Bylot Island and northern Baffin Island (Pond Inlet region, Tulukane (18 miles west), Eguksuak (8 miles east), James Creek) south for an undetermined distance on east coast; south in western Baffin Island along east side of Foxe Basin in rocky highlands to about lat. 67°30′ N., where grassy tundra land begins; west side of Foxe Basin along coast of Melville Peninsula (Fury and Hecla Strait, Igloolik, and Ahadzar Islands and mainland in vicinity); southern and western limits of range not definitely known; hares known to occur in northern Keewatin and interior islands of Canadian Arctic Archipelago (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 97, Jan. 24, 1947).

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[58] Revised by Nelson, North Amer. Fauna No. 29, pp. 58–158, Aug. 31, 1909. For revision of geographic ranges and marginal records, see Hall, Univ. Kansas Publ., Mus. Nat. Hist., vol. 5, No. 10, pp. 170–189, Dec. 15, 1951.

[59] Brookes, J., A catalogue of the anatomical and zoological museum of Joshua Brookes, pt. 1, p. 54, July 1828. (Nomen nudum.)

[60] American arctic hares (*Lepus arcticus* and *Lepus othus*) revised by A. H. Howell, Journ. Mamm., vol. 17, No. 4, pp. 315–337, Nov. 16, 1936. For discussion of the technical names of *arcticus* and *glacialis* see Rhoads, Amer. Nat., vol. 30, pp. 234–235, March 1896; Stone, Auk, vol. 13, pp. 183–187, April 1896; Merriam, Science, new ser., vol. 3, pp. 564–565, Apr. 10, 1896 and p. 845, June 5, 1896; Rhoads, Science, new ser., vol. 3, pp. 843–845, June 5, 1896.

Lepus arcticus labradorius Miller†*

1899. *Lepus labradorius* Miller, Proc. Biol. Soc. Washington, vol. 13, p. 39, May 29, 1899.

1902. *Lepus arcticus canus* Preble†, North Amer. Fauna No. 22, p. 59, Oct. 31, 1902. (Hubbart Point, west coast of Hudson Bay, extreme northeastern Manitoba, about 75 miles north of Churchill, Canada.)

1924. *Lepus arcticus labradorius* G. M. Allen and Copeland, Journ. Mamm., vol. 5, No. 1, p. 12, Feb. 9, 1924.

Type Locality.—Fort Chimo, Quebec, Canada. *Range.*—Region around Hudson Strait and northern part of Hudson Bay, on east side from Great Whale River north to Hudson Strait, Ungava Bay (Chimo), and northern coastal region of Labrador south to Davis Inlet (Cape Mugford, Nain, Ramah, Solomon's Island), and on west side from Churchill, Manitoba, north to Cape Fullerton and Southampton Island, and southern Baffin Island at least to north side of Cumberland Sound (Blacklead Island, Kingua Fiord, Nettilling Fiord, Pangnirtung) on east coast, and on west coast from Cape Dorset north to Bowman Bay; western limits of range not determined, but presumably intergrades with *arcticus* in northeast Keewatin west of Melville Peninsula, and with *andersoni* farther southward (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 98, Jan. 24, 1947).

Lepus arcticus bangsii Rhoads*

1896. *Lepus arcticus bangsii* Rhoads, Amer. Nat., vol. 30, No. 351, p. 236, Mar. 6, 1896.

Type Locality.—Codroy, Newfoundland. *Range.*—Newfoundland and treeless coast belt of Labrador from Strait of Belle Isle north to about lat. 55° N. (Hopedale, Makkovik, Pomialuk); now restricted to bare hilltops in Newfoundland and exterminated in parts of Labrador coast (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 97, Jan. 24, 1947).

Lepus arcticus andersoni Nelson*

1934. *Lepus arcticus andersoni* Nelson, Proc. Biol. Soc. Washington, vol. 47, p. 85, Mar. 8, 1934.

Type Locality.—Cape Barrow, lat. 67° 59′ 32″ N., long. 110° 06′ 15″ W., Coronation Gulf, Mackenzie District, Northwest Territories, Canada. *Range.*—Arctic drainage of Mackenzie District, Northwest Territories, from north side of Great Slave Lake (Fort Rae), Hanbury Lake, and Aylmer Lake, and to Arctic coast and southern parts of Victoria Island (Cambridge Bay, Mackenzie Creek) and Banks Island (Cape Kellett, about lat. 72° N., long. 125° W.); specimens not available from east of Bathurst Inlet and Beechey Lake on upper Back River in Mackenzie District, but probably occurs farther east to meet range of *labradorius* on west side of Hudson Bay; westward along Arctic coast and to edge of scattered timber at northern edge of Hudsonian Zone to Coronation Gulf (Cape Barrow, Gray Bay, Port Epworth at mouth of Tree River, lower Coppermine River at Sandstone Rapids, Cape Kendall, and Cape Krusenstern), Dismal Lake northeast of Great Bear Lake, Dolphin and Union Strait (Bernard Harbor, Liston Island), Cape Parry, Langton Bay near south end of Franklin

Bay, and old Fort Anderson on lower Anderson River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 97, Jan. 24, 1947).

Lepus arcticus hubbardi Handley†*

1952. *Lepus arcticus hubbardi* Handley, Proc. Biol. Soc. Washington, vol. 65, p. 199, Nov. 5, 1952.

Type Locality.—Near Cherie Bay, 5 miles northeast of Mould Bay Station, Prince Patrick Island, Franklin District, Northwest Territories, Canada. Altitude, 350 feet. *Range.*—Known only from Prince Patrick Island; probably inhabits islands to the east and northeast.

Lepus arcticus monstrabilis Nelson†*

1934. *Lepus arcticus monstrabilis* Nelson, Proc. Biol. Soc. Washington, vol. 47, p. 85, March 8, 1934. (Regarded by Degerbøl, Vid. Medd. naturh. For., vol. 68, p. 205, Dec. 15, 1934, as doubtfully distinct from *arcticus*.)

Type Locality.—Buchanan Bay, Ellesmere Island, Northwest Territories, Canada. *Range.*—All of Ellesmere and Devon Islands and probably also Axel Heiberg Island of Sverdrup Island group just west of Ellesmere Island; limits of range westward unknown; presumably occurs sporadically and intergrading with *groenlandicus* on coast of northwest Greenland (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 99, Jan. 24, 1947).

Lepus arcticus groenlandicus Rhoads*

1896. *Lepus groenlandicus* Rhoads, Amer. Nat., vol. 30, No. 351, p. 237, Mar. 6, 1896.

1902. *Lepus variabilis* var. *glacialis* Winge, Medd. om Grønland, vol. 21, pt. 2, p. 375. (Not of Leach, 1819.)

1930. *Lepus variabilis hyperboreus* Pedersen, Medd. om Grønland, vol. 77, pt. 2, p. 363. (Not *Lepus hyperboreus* Pallas, Zoographia Rosso-Asiatica, . . . vol. 1, p. 152, 1811, a species of *Ochotona*.)

1934. [*Lepus arcticus*] *groenlandicus* Nelson, Proc. Biol. Soc. Washington, vol. 47, p. 83, Mar. 8, 1934.

1934. *Lepus arcticus persimilis* Nelson, Proc. Biol. Soc. Washington, vol. 47, p. 84, Mar. 8, 1934. (South side of Clavering Island, eastern Greenland.)

Type Locality.—Robinson's Bay [= Robertson Bay], northwestern Greenland, about lat. 76° 45′ N., long. 70° 10′ W., about 60 miles southeast of Etah. *Range.*—Coastal belt and adjacent islands of northern Greenland on west coast from about Disko Bay, south of which it intergrades with *porsildi*, north to extreme northern tip of Greenland at about lat. 83° 40′ N., and to a little beyond Cape Dalton south of Scoresby Sound, approximately lat. 70° N. (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 98, Jan. 24, 1947).

Lepus arcticus porsildi Nelson†*

1934. *Lepus arcticus porsildi* Nelson, Proc. Biol. Soc. Washington, vol. 47, p. 83, Mar. 8, 1934.

Type Locality.—Near Julianehaab, lat. 61° 21′ N., southern Greenland. *Range.*—From extreme southern Greenland north to about Disko Bay (about lat. 69° N.); intergrading with *groenlandicus* from Sukkertoppen (about lat. 66° N.) to Disko Bay (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 99, Jan. 24, 1947).

Lepus othus othus Merriam†*

1900. *Lepus othus* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 28, Mar. 14, 1900.

1936. *Lepus othus othus* A. H. Howell, Journ. Mamm., vol. 17, No. 4, p. 332, Nov. 16, 1936.

Type Locality.—St. Michael, Norton Sound, Alaska. *Range.*—Tundras of northern and northwestern Alaska, exclusive of the Peninsula and Bristol Bay section; south to Kuskokwim River region; east to upper Colville River and possibly farther (A. H. Howell, op. cit., p. 333).

Lepus othus poadromus Merriam†*

1900. *Lepus poadromus* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 29, Mar. 14, 1900.

1936. *Lepus othus poadromus* A. H. Howell, Journ. Mamm., vol. 17, No. 4, p. 334, Nov. 16, 1936.

Type Locality.—Stepovak Bay, Alaska Peninsula, Alaska. *Range.*—Alaska Peninsula and Bristol Bay district of Alaska (A. H. Howell, loc. cit.).

Lepus townsendii townsendii Bachman* (white-tailed jackrabbit)

1839. *Lepus townsendii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 1, p. 90, pl. 2.

1904. *Lepus campestris sierrae* Merriam,† Proc. Biol. Soc. Washington, vol. 28, p. 70, Mar. 12, 1915. (Hope Valley, Alpine County, Calif.; altitude, 7,800 feet. Regarded as identical with *townsendii* by Orr., Occ. Pap. California Acad. Sci. No. 19, p. 42, May 25, 1940.)

1904. *Lepus campestris townsendi* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 132, May 14, 1904.

1915. *Lepus townsendii townsendii* Hollister, Proc. Biol. Soc. Washington, vol. 28, p. 70, Mar. 12, 1915.

Type Locality.—Fort Walla Walla, near present town of Wallula, Walla Walla County, Wash. *Range.*—Great Basin region, including eastern slopes of Cascade Range, and thence eastward to Rocky Mountains; formerly on grasslands of eastern Washington, but now restricted or scarce except in Okanogan Valley (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 380, Apr. 9, 1948); north into Okanagan Valley (Oliver, Osoyoos, north to Fairview), British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 99, Jan. 24, 1947); south in open country of Oregon east of Cascades (V. Bailey, North Amer. Fauna No. 55 (June), p. 97, Aug. 29, 1936) to higher parts of northeastern Great Basin area of California, south along crests and eastern slopes of Sierra Nevada to Mount Whitney region in Tulare and Inyo Counties, and in winter descending to a lower level on eastern side of Sierra Nevada (Orr, op. cit., p. 38); eastern slope of Sierra Nevada and northern Nevada (Hall, Mammals of Nevada, p. 598, July 1, 1946); east through southern half of Idaho (Davis, The recent mammals of Idaho, p. 354, Apr. 5, 1939); and most of Utah to extreme southwestern Wyoming and summit of Rocky Mountains in Colorado (Warren, The mammals of Colorado, . . . , p. 256, 1942). Vertical range, from about 1,000 feet in eastern Washington to 12,000 feet in Colorado; zonal range, mainly Upper Sonoran and Transition, but extends up to Hudsonian in mountains of Colorado.

Lepus townsendii campanius Hollister*

1837. *Lepus campestris* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, p. 349. (Not of Meyer, 1790.)

1884. *Lepus campestris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1915. *Lepus townsendii campanius* Hollister, Proc. Biol. Soc. Washington, vol. 28, p. 70, Mar. 12, 1915.

Type Locality.—Plains of the Saskatchewan, Canada (probably near Carlton House). *Range.*—Great Plains region of Alberta, Saskatchewan, Manitoba, and Rainy River region in extreme western Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 100, Jan. 24, 1947), Canada, and thence south on plains of United States, east of Rocky Mountains, over Montana, Wyoming (except extreme southwestern part), the Dakotas, Minnesota (Swanson, Minnesota Dept. Conserv. Tech. Bull. No. 2, p. 97, 1945) to extreme southeastern corner (Lanesboro), northwestern Illinois (Hoffmeister, Nat. Hist. Misc. Chicago Acad. Sci. No. 29, p. 1, Oct. 15, 1948), Iowa east to Mississippi River (Muscatine), Nebraska, northern half of Kansas (Brown, Trans. Kansas Acad. Sci., vol. 43, pp. 385–389, 1940), Colorado east of summit of Rocky Mountains, and middle northern border of New Mexico; vertical range, from less than 1,000 feet in Iowa up to at least 10,000 feet on mountains of Colorado; zonal range, mainly Upper Sonoran and Transition on plains of western United States, extending into Canadian on mountains and in northern part of the range (Nelson, North Amer. Fauna No. 29, p. 74, Aug. 31, 1909). Introduced into Dunn County, Wisc. (Jackson, Journ. Mamm., vol. 1, No. 4, p. 186, Aug. 24, 1920).

Lepus americanus americanus Erxleben* (American varying hare)

1777. [*Lepus*] *americanus* Erxleben, Systema regni animalis . . . , p. 330.

1884. *Lepus americanus americanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1899. *Lepus bishopi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 11, Mar. 4, 1899. (Mill Lake, Turtle Mountains, N. Dak.)

Type Locality.—Hudson Bay, Canada. (Restricted to Fort Severn, Ontario, Canada, by V. Bailey, North Amer. Fauna No. 49 (1926), p. 138, Jan. 8, 1927.) *Range.*—Region about southern end of Hudson Bay, including southern Keewatin; most of Saskatchewan; Manitoba; east through northern Ontario (including Isle Royale and Michipicoten Island, Lake Superior); northern Quebec; all of Ungava except extreme northern part; Labrador; southward through forested parts of North Dakota (V. Bailey, loc. cit.).

Lepus americanus struthopus Bangs*

1898. *Lepus americanus struthopus* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 81, Mar. 24, 1898.

Type Locality.—Digby, Nova Scotia, Canada. *Range.*—Maine, east of Penobscot River, Nova Scotia, New Brunswick, eastern Quebec (south of lower St. Lawrence and including Magdalen Islands), and Newfoundland; vertical range, from sea level up to over 2,500 feet in New Brunswick; zonal range, Canadian (Nelson, North Amer. Fauna No. 29, p. 90, Aug. 31, 1909). Not native to Newfoundland, but introduced from Nova Scotia in 1864 and now well distributed on Island (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 102. Jan. 24, 1947).

Lepus americanus virginianus Harlan*

1825. *Lepus virginianus* Harlan, Fauna Americana; . . . , p. 196.

1875. [*Lepus americanus*] var. *virginianus* J. A. Allen, Proc. Boston Soc. Nat. Hist., vol. 17, p. 431.

1884. *Lepus americanus virginianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

Type Locality.—Blue Mountains, northeast of Harrisburg, Pa. *Range.*—Mountains of West Virginia and Virginia north through Maryland, Pennsylvania, New York, New Jersey, Delaware, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, most of Maine east to Penobscot River and Mount Katahdin (Nelson, North Amer. Fauna No. 29, p. 92, Aug. 31, 1909); and parts of southern Quebec lying north of boundary of western Maine (Megantic County) and northern New Hampshire, Vermont and New York, also southern and eastern Ontario north to Ottawa River, intergrading with *americanus* in southwestern Quebec a short distance north of Ottawa (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 103, Jan. 24, 1947); recorded also from Ashtabula County, Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 173, Sept. 11, 1942).

Lepus americanus phaeonotus J. A. Allen*

1899. *Lepus americanus phaeonotus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 11, Mar. 4, 1899.

Type Locality.—Hallock, Kitson County, Minn. *Range.*—Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 245, 1946), northern Wisconsin, northern Minnesota south to Elk River (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 97, 1945); and northward into extreme western Ontario, and southern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 102, Jan. 24, 1947); vertical range, from about 900 to 2,000 feet on Upper Peninsula of Michigan; zonal range, Canadian.

Lepus americanus macfarlani Merriam†*

1900. *Lepus americanus macfarlani* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 30, Mar. 14, 1900.

1900. *Lepus saliens* Osgood†, North Amer. Fauna No. 19, p. 39, Oct. 6, 1900. (Caribou Crossing, between Lake Bennett and Lake Tagish, Yukon, Canada.)

1907. *Lepus niediecki* Matschie, *in* Niedieck, Kreusfarten im Beringmeer . . . , p. 240 (Kasilof Lake, Kenai Peninsula, Alaska. Not mentioned by Nelson).

Type Locality.—Fort Anderson, near mouth of Anderson River, Mackenzie district, Northwest Territories, Canada. *Range.*—Wooded parts of Alaska, from upper Yukon region southwest to Cook Inlet and base of Alaska Peninsula, all of Yukon, western Mackenzie (Nelson, North Amer. Fauna No. 29, p. 98, Aug. 31, 1909); northern British Columbia (Peace River and Alaska Highway), and northwestern Alberta (Wood Buffalo Park), Canada; northern limit coincides with that of trees; vertical range, in Mackenzie River region, from near sea level up to over 2,000 feet; zonal range, mainly Hudsonian (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 101, Jan. 24, 1947).

Lepus americanus dalli Merriam†*

1900. *Lepus americanus dalli* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 29, Mar. 14, 1900.

Type Locality.—Nulato River, Alaska. *Range.*—Wooded parts of western Alaska from below Fort Yukon to coast of Bering Sea at mouth of Yukon, and from Bristol Bay north to tree limit; vertical range, from near sea level on lower Yukon up to about 2,000 feet on adjacent mountains; zonal range, mainly Hudsonian.

Lepus americanus pallidus Cowan*

1938. *Lepus americanus pallidus* Cowan, Journ. Mamm., vol. 19, No. 2, p. 242, May 12, 1938.

Type Locality.—Chezacut Lake, Chilcotin River, British Columbia, Canada. *Range.*—Central British Columbia from Indianpoint region north to Hazelton, and from Coast Range east to Rocky Mountains (Mount Robson); northeastern extent of range unknown (Dalquest Journ. Mamm., vol. 23, No. 2, p. 182, May 14, 1942).

Lepus americanus cascadensis Nelson*

1907. *Lepus bairdi cascadensis* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 87, Dec. 11, 1907.

1936. *Lepus americanus cascadensis* Racey and Cowan, Prov. British Columbia, Rep. Prov. Mus. Nat. Hist. for 1935, p. H18, 1936.

Type Locality.—Roab's ranch, near Hope, British Columbia, Canada. *Range.*—Cascade Mountains of Washington and British Columbia, from Mount Adams, Washington, on the south, to Jervis Inlet, British Columbia, on the north; bordered on west, south of Fraser River, by range of *washingtoni*, on north by range of *pallidus*, and on east by range of *columbiensis* and eastern Washington desert (Dalquest, Journ. Mamm., vol. 23, No. 2, p. 176, May 14, 1942).

Lepus americanus columbiensis Rhoads*

1895. *Lepus americanus columbiensis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 242, July 2, 1895.

Type Locality.—Vernon, British Columbia, Canada. *Range.*—From timbered areas north of Columbia River, east of Okanogan River and west of Kettle River Range (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 385, Apr. 9, 1948) northward to Indianpoint Lake, British Columbia; and from Okanagan Valley (Okanagan Landing; Incaneep Creek, head; Vaseaux Lake) east to Jasper and Banff National Parks, Alberta; intergrading with *americanus* in eastern foothills of Rocky Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 101, Jan. 24, 1947).

Lepus americanus washingtonii Baird†*

1855. *Lepus washingtonii* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, (1854–55), p. 333, April 1855.

1875. [*Lepus americanus*] var. *washingtoni* J. A. Allen, Proc. Boston Soc. Nat. Hist., vol. 18, p. 434.

1884. *Lepus americanus washingtoni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

Type Locality.—Steilacoom, Puget Sound, Pierce County, Wash. *Range.*—Western slope of Cascade Mountains in British Columbia, Washington, and Oregon; south at least to Rogue River, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 96, Aug. 29, 1936); humid subdivision of Transition Zone in western Washington and east in lower Columbia River Valley to White Salmon (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 384, Apr. 9, 1948); and north to Fraser River (Chilliwack, Cultus Lake, Douglas, Huntingdon, Hastings, Point Grey), British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 103, Jan. 24, 1947); vertical range, from about sea level to 3,500 feet on west slope of Cascades; zonal range, mainly Transition and Canadian.

Lepus americanus oregonus Orr*

1934. *Lepus bairdii oregonus* Orr, Journ. Mamm., vol. 15, No. 2, p. 15, May 15, 1934.

1942. *Lepus americanus oregonus* Dalquest, Journ. Mamm., vol. 23, No. 2, p. 179, May 14, 1942.

Type Locality.—Twelve miles south of Canyon City, Grant County, Oreg. Altitude, 5,500 feet. *Range.*—Eastern Oregon, from Wallowa County southward to Harney County; bounded on north by range of *pineus*, on east by Snake River and range of *bairdii*, and on west and south by desert regions (Dalquest, Journ. Mamm., vol. 23, No. 2, pp. 179, 180, May 14, 1942).

Lepus americanus klamathensis Merriam†*

1899. *Lepus klamathensis* Merriam, North Amer. Fauna No. 16, p. 100, Oct. 28, 1899.

1936. *Lepus americanus klamathensis* V. Bailey, North Amer. Fauna No. 55 (June), p. 95, Aug. 29, 1936.

Type Locality.—Head of Wood River, near Fort Klamath, Klamath County, Oreg. *Range.*—Cascade Mountains from Mount Hood, Oreg. (V. Bailey, loc. cit.), south to higher mountains of extreme northern California; from Trinity County north and also east, to and including Warner Mountains of Modoc County, Calif. (Orr. Occ. Pap. California Acad. Sci., No. 19, p. 50, May 25, 1940); in Oregon bounded on west by range of *washingtonii* and on east by Upper Sonoran Zone desert; vertical range, from 3,000 to 5,000 feet; zonal range, Canadian, occasionally high Transition and low Hudsonian.

Lepus americanus tahoensis Orr*

1933. *Lepus washingtonii tahoensis* Orr, Journ. Mamm., vol. 14, No. 1, p. 54, Feb. 14, 1933.

1942. [*Lepus americanus*] *tahoensis* Dalquest, Journ. Mamm., vol. 23, No. 2, p. 176, May 14, 1942.

Type Locality.—One-half mile south of Tahoe Tavern, Placer County, Calif. *Range.*—Along Sierra Nevada of California from region of Mount Lassen, south, at least to Niagara Creek, Tuolumne County; vertical range, from 4,800 to 7,000 feet; zonal range, mainly Canadian (Orr, Occ. Pap. California Acad. Sci., No. 19, p. 53, May 25, 1940).

Lepus americanus pineus Dalquest*

1942. *Lepus americanus pineus* Dalquest, Journ. Mamm., vol. 23, No. 2, p. 178, May 14, 1942.

Type Locality.—Cedar Mountain (Moscow Mountain), Latah County, Idaho. *Range.*—Panhandle of northern Idaho, and through extreme Washington from Blue Mountains in southeastern Washington north to near Washington–British Columbia international boundary in Pend-d'Oreille, Stevens, and Ferry Counties and west to Kettle River Mountains; intergradation between *pineus* and *columbiensis* in Kettle River Mountains of Washington and Kootenay Valley of British Columbia; intergradation between *pineus* and *bairdii* to the east of Panhandle of Idaho (Dalquest, loc. cit.).

Lepus americanus bairdii Hayden†*

1869. *Lepus bairdii* Hayden, Amer. Nat., vol. 3, p. 115, May 1869.

1875. [*Lepus americanus*] var. *bairdii* J. A. Allen, Proc. Boston Soc. Nat. Hist., vol. 18, p. 434.

1884. *Lepus americanus bairdii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

Type Locality.—Near Fremont Peak, Wind River Mountains, Fremont County, Wyo. *Range.*—Higher parts of Rocky Mountains from San Juan and Jemez Ranges of New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 45, Mar. 1, 1932) northward through Colorado, western Wyoming, central Utah, mountainous portions of Idaho north and east of Snake River plains (Davis, The Recent mammals of Idaho, p. 355, Apr. 5, 1939) and western Montana to extreme southwestern Alberta (Waterton Lakes National Park) and to Elko and Newgate near international boundary east of Kootenay River in extreme southeastern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 100, Jan. 24, 1947); vertical range, from about 8,000 to 11,000 feet (timber line) in northern New Mexico and Colorado; zonal range, Canadian and Hudsonian.

Lepus americanus seclusus Baker and Hankins*

1950. *Lepus americanus seclusus* Baker and Hankins, Proc. Biol. Soc. Washington, vol. 63, p. 63, May 25, 1950.

Type Locality.—Twelve miles east and two miles north of Shell, Bighorn Mountains, Bighorn County, Wyo. Altitude, 7,900 feet. *Range.*—Bighorn Mountains of north-central Wyoming.

Lepus europaeus europaeus Pallas* (European hare)

1778. *Lepus europaeus* Pallas, Novae species quadrupedum e glirum ordine, . . . , p. 30.

Type Locality.—Burgundy, France. *Range.*—Introduced in Ontario, Canada (Anderson, Canadian Field-Nat., vol. 37, No. 4, pp. 75–76, Apr. 21, 1923); well established and slowly spreading in southern Ontario north of Lake Erie (St. Thomas and Woodstock), west and north of Lake Ontario (Toronto) to Goderich on east side of Lake Huron (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 100, Jan. 24, 1947); and Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 247, 1946).

Lepus europaeus hybridus Desmarest*

1822. *Lepus hybridus* Desmarest, [*in* Encyclopedie méthodique . . .] Mammalogie, . . . , pt. 1, p. 349. (Name based on "Russac" of Pallas, Novae species quadrupedum e glirum ordine, . . . , p. 5, 1778.)

1912. *Lepus europaeus hybridus* Miller, Catalogue of the mammals of western Europe in . . . the . . . British Museum, p. 508, Nov. 23, 1912.

Type Locality.—Central Russia. *Range.*—Introduced and established in New York and Connecticut (see Goodwin, Connecticut Geol. Nat. Hist. Bull. 53, pp. 159–162, 1935).

Subgenus MACROTOLAGUS Mearns (black-tailed jackrabbits)

1895. *Macrotolagus* Mearns, Science, new ser., vol. 1, p. 698, June 21, 1895. (Type, *Lepus alleni* Mearns. See Mearns, Proc. U. S. Nat. Mus., vol. 18, p. 552, June 24, 1896; Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942; and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 4, pp. 45–46, Oct. 1, 1951.)

Lepus alleni alleni Mearns*

1890. *Lepus alleni* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 294, Feb. 21, 1890.

1942. *Macrotolagus alleni alleni* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Rillito, on the Southern Pacific Railroad, Pima County, Ariz. *Range.*—Desert plains of southern Arizona from Phoenix and Tucson, south through similar country to a little beyond Guaymas, in southern Sonora, México (Nelson, North Amer. Fauna No. 29, p. 117, Aug. 31, 1909); eastward to Cascabel, Cochise County (Vorhies and Taylor, Univ. Arizona Coll. Agr. Exp. Stat. Techn. Bull. 49, p. 480, May 31, 1933), and to vicinity of Pantano, about 20 miles west of Benson (Swarth, Proc. California Acad. Sci., ser. 4, vol. 18, No. 12, p. 365, Apr. 26, 1929), and westward to Organ Pipe Cactus National Monument, Pima County, Ariz. (Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 32, p. 362, Feb. 17, 1942).

Lepus alleni palitans Bangs*

1900. *Lepus* (*Macrotolagus*) *alleni palitans* Bangs, Proc. New England Zool. Club, vol. 1, p. 85, Feb. 23, 1900.

1942. [*Macrotolagus*] *alleni palitans* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Agua Caliente, about 40 miles southeast of Mazatlán, Sinaloa, México. *Range.*—Coastal plains of northwest México from Río Yaqui in southern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 67, Feb. 15, 1938) south through Sinaloa to Rosa Morada in northern Nayarit (Nelson, North Amer. Fauna No. 29, p. 118, Aug. 31, 1909); eastward to near San Bernardo on Sonora side of Sonora-Chihuahua boundary (Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 7, May 27, 1941); vertical range, from near sea level to about 2,000 feet in southern Sonora; zonal range, Arid Tropical and lower part of Lower Sonoran.

Lepus alleni tiburonensis Townsend†*

1912. *Lepus alleni tiburonensis* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 120, June 14, 1912.

1942. [*Macrotolagus*] *alleni tiburonensis* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Lower levels of Tiburón Island (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 68, Feb. 15, 1938).

Lepus gaillardi gaillardi Mearns†*

1896. *Lepus gaillardi* Mearns, Proc. U. S. Nat. Mus., vol. 18, p. 560, June 24, 1896.

1942. [*Macrotolagus*] *gaillardi gaillardi* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—West Fork of the Playas Valley, near monument No. 63, Mexican boundary line, Hidalgo County, N. Mex. *Range.*—Playas and Animas River Valleys in extreme southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 53, Mar. 1, 1932) southward, along eastern base of Sierra Madre, through adjacent parts of northern Chihuahua; vertical range, from about 4,500 feet to 7,000 feet in northwestern Chihuahua; zonal range, mainly Upper Sonoran extending into lower part of Transition (Nelson, North Amer. Fauna No. 29, p. 120, Aug. 31, 1909).

Lepus gaillardi battyi J. A. Allen

1903. *Lepus* (*Microtolagus* [sic]) *gaillardi battyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 607, Nov. 12, 1903.

1942. [*Macrotolagus*] *gaillardi bottyi* [*sic*] Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Rancho Santuario, northwestern Durango, México. *Range.*—East base of Sierra Madre and adjacent plains of northwestern Durango and southwestern Chihuahua; vertical range, from about 4,500 to 6,500 feet in north-central Durango; zonal range, mainly Upper Sonoran (Nelson, North Amer. Fauna No. 29, p. 121, Aug. 31, 1909).

Lepus callotis Wagler*

1830. *Lepus callotis* Wagler, Natürliches System . . . , p. 23, August 1830.

1833. *Lepus nigricaudatus* Bennett, Proc. Zool. Soc. London, 1833, pt. 1, p. 41, May 17, 1833. ("That part of California which adjoins to Mexico" = probably southwestern part of Mexican tableland according to Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 10, p. 187, Dec. 15, 1951.)

1844. *Lepus callotis* var. *flavigularis* Wagner, *in* Schreber, Die Säugthiere . . ., p. 601, Nov. 29, 1884. (Part.)

1942. [*Macrotolagus*] *callotis* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Southern end of Mexican tableland. *Range.*—Open plains of southern half of Mexican tableland from central Durango, northern Zacatecas, and central San Luis Potosí south through Aguascalientes, most of Jalisco, northern Michoacán, Guanajuato, Querétaro, State of México, Distrito Federal Hidalgo, Puebla, Morelos, northwestern half of Oaxaca, and northern half of Guerrero; vertical range, from about 2,500 feet in Morelos to 8,500 feet in northern Puebla; zonal range, Upper and Lower Sonoran and into upper border of Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 122, Aug. 31, 1909).

Lepus flavigularis Wagner*

1844. *Lepus callotis* var. *flavigularis* Wagner, *in* Schreber, Die Säugthiere . . ., Suppl., vol. 4, p. 106, 1844.

1909. *Lepus flavigularis* Nelson, North Amer. Fauna No. 29, p. 125, Aug. 31, 1909.

1942. [*Macrotolagus*] *flavigularis* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—México (probably near the city of Tehuantepec, Oaxaca). *Range.*—Coastal plains and bordering foothills on southern end of Isthmus of Tehuantepec, in southern Oaxaca, and thence along Pacific coast to beyond Tonalá, Chiapas; vertical range, from sea level up to about 2,000 feet in southern Oaxaca; zonal range, Arid Tropical (Nelson, loc. cit.).

Lepus californicus californicus Gray*

1837. *Lepus californica* Gray, Mag. Nat. Hist., n. s., vol. 1, p. 586.

1884. *Lepus californicus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1926. *Lepus californicus vigilax* Dice, Occ. Pap. Mus. Zool. Univ. Michigan No. 166, p. 11, Feb. 11, 1926. (Ball's Ferry, Shasta County, Calif. Regarded as identical with *californicus* by Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 200, Sept. 26, 1933, and by Orr, Occ. Pap. California Acad. Sci. No. 19, p. 67, May 25, 1940.)

Type Locality.—"St. Antoine," Calif. (probably on coastal slope west of Mission of San Antonio, Jolon, Monterey County). *Range.*—Almost whole of northern California west of main Cascade and Sierran Divides, from Oregon line south along seacoast to about Point Conception, Santa Barbara County, and along west flank of Sierra Nevada to northern Tulare County; includes whole of Sacramento Valley and south into northern end of San Joaquin Valley as far as Merced and Madera Counties; recorded east at north to Shasta Valley, Siskiyou County, Cassel, Shasta County, and Mineral, Tehama County; vertical range, from sea level (Grizzly Island, Solano County) up at least to 5,700 feet (South Fork Mountain, Humboldt County); zonal range, mainly Upper Sonoran, but invades Transition and also Canadian in northwestern California, and occupies Lower Sonoran in Sacramento Valley (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 200, Sept. 26, 1933); and northward through open country of Rogue, Umpqua, and Willamette Valleys to vicinity of Salem, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 99, Aug. 29, 1936).

Lepus californicus richardsonii Bachman*

1839. *Lepus richardsonii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 1, p. 88, 1839.

1904. *Lepus tularensis* Merriam†, Proc. Biol. Soc. Washington, vol. 17, p. 136, July 14, 1904. (Alila [=Earlimart], Tulare County, Calif.)

1909. *Lepus californicus richardsoni* Nelson, North Amer. Fauna No. 29, p. 133, Aug. 31, 1909.

Type Locality.—California (exact locality unknown, but probably on interior slope of mountains near Jolon, Monterey County). *Range.*—Southern (upper) portion of San Joaquin Valley and surrounding foothills, west to include Carrizo Plain, Cuyama Valley, and upper (southern) two-thirds of Salinas Valley; recorded northwest to Huron, Fresno County, and to Soledad, Monterey County, south to Tehachapi and Tejon Passes, Kern County, and west as far as near Chalk Peak, southern Monterey County, Calif.; vertical range, from below 200 feet (along San Joaquin River, Fresno County) up to 6,500 feet (on slopes of Mount Pinos, Ventura County near Kern County line); zonal range, mainly Lower Sonoran, locally Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 200, Sept. 26, 1933).

Lepus californicus bennettii Gray*

1843. *Lepus bennettii* Gray, Zoology of the voyage of H.M.S. *Sulphur*, under the command of Capt. Sir E. Belcher, vol. 1, No. 1, Mammalia, pt. 1, p. 35, pl. 14, April 1843.

1909. *Lepus californicus bennetti* Nelson, North Amer. Fauna No. 29, p. 136, Aug. 31, 1909.

Type Locality.—San Diego, San Diego County, Calif. *Range.*—Southern California west of summit of Coast Range from near Gaviota Pass, Santa Barbara County, to Mexican border and south along coast to San Quintín, Baja California; vertical range, from sea level at San Diego up to about 6,000 feet on Cuyamaca mountains; zonal range, mainly Upper Sonoran (Nelson, loc., cit.).

Lepus californicus deserticola Mearns*

1896. *Lepus texianus deserticola* Mearns, Proc. U. S. Nat. Mus., vol. 18, p. 564, June 24, 1896.

1909. *Lepus californicus deserticola* Nelson, North Amer. Fauna No. 29, p. 137, Aug. 31, 1909.

1932. *Lepus californicus depressus* Hall and Whitlow, Proc. Biol. Soc. Washington, vol. 45, p. 71, Apr. 2, 1932. (Half a mile south of Pocatello, Bannock County, Idaho. Regarded as identical with *deserticola* by Davis, The Recent mammals of Idaho, pp. 357, 358–359, Apr. 5, 1939.)

Type Locality.—Western edge of Colorado Desert, at east base of Coast Range [near Mexican boundary], Imperial County, Calif. *Range.*—Arid desert areas of northeastern Baja California, east of Sierra San Pedro Mártir and Laguna Hanson Mountains, south to Calamajue Bay, and extreme northwestern Sonora in México; and thence north east of Coast Range through Colorado and Mohave Deserts at least to Fairmont, Los Angeles County, and to Bodfish, Kern County (see Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 201, Sept. 26, 1933), and along east side of Sierra Nevada to Alpine County, Calif., through most of Nevada, except northwestern part north of Pyramid Lake, most of Utah and southern Idaho, to Pahsimeroi Valley, and east to Phoenix and San Francisco Mountains in Arizona; vertical range, from below sea level in Colorado Desert to 7,500 feet in border of pine forest on Mogollon plateau of northern Arizona, and to 9,000 feet in San Bernardino Mountains, Calif.; zonal range, mainly Upper and Lower Sonoran (Nelson, loc. cit.).

Lepus californicus martirensis Stowell*

1895. *Lepus martirensis* Stowell, Proc. California Acad. Sci., ser. 2, vol. 5, p. 51, May 28, 1895.

1909. *Lepus californicus martirensis* Nelson, North Amer. Fauna No. 29, p. 152, Aug. 31, 1909.

Type Locality.—Sierra San Pedro Mártir, Baja California, México. *Range.*—Middle Baja California, from San Rafael Valley, and southern part of Laguna Hanson Mountains, south through Sierra San Pedro Mártir to La Purísima in the interior, and along both coasts of peninsula from San Simon River to Scammon Lagoon on Pacific side, and from Calamajue Bay to Muleje on Gulf coast; vertical range, from sea level at San Quentín to 7,000 feet in Sierra San Pedro Mártir; zonal range, from Lower Sonoran up through Upper Sonoran and into Transition (Nelson, loc. cit.).

Lepus californicus xanti Thomas*

1898. *Lepus californicus xanti* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 7, p. 45, January 1898.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Southern part of Peninsula of Baja California from Loreto on Gulf coast, Scammon Lagoon on Pacific Coast, and Comondú in interior, south to Cape San Lucas; vertical range, from sea level up to about 4,000 feet in Cape region; zonal range, mainly Lower Sonoran and upper part of Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 155, Aug. 31, 1909).

Lepus californicus magdalenae Nelson†*

1907. *Lepus californicus magdalenae* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 81, July 22, 1907.

Type Locality.—Magdalena Island, Baja California, México. *Range.*—Magdalena and Margarita Islands, near southern end of Baja California; vertical range, from sea level to about 1,000 feet altitude; zonal range, Lower Sonoran (Nelson, North Amer. Fauna No. 29, p. 154, Aug. 31, 1909).

Lepus californicus sheldoni Burt

1933. *Lepus californicus sheldoni* Burt, Proc. Biol. Soc. Washington, vol. 46, p. 37, Feb. 20, 1933.

Type Locality.—Carmen Island, lat. 26° N., long. 111° 12′ W., Gulf of California, Baja California, México. *Range.*—Carmen Island.

Lepus californicus wallawalla Merriam†*

1904. *Lepus texianus wallawalla* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 137, July 14, 1904.

1909. *Lepus californicus wallawalla* Nelson, North Amer. Fauna No. 29, p. 132, Aug. 31, 1909. (Regarded as identical with *deserticola* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 385, Apr. 9, 1948.)

Type Locality.—Touchet, Plains of the Columbia, Walla Walla County, Wash. *Range.*—Northeastern California, northwestern Nevada, and north through eastern Oregon into Yakima Valley area and Columbian Plateau (Moses Coulee) of southeastern Washington; vertical range, from about 1,000 feet in eastern Washington to 6,000 feet in northeastern California; zonal range, mainly Upper Sonoran extending into lower part of Transition (Nelson, loc. cit.).

Lepus californicus eremicus J. A. Allen*

1894. *Lepus texianus eremicus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 347, Dec. 7, 1894.

1909. *Lepus californicus eremicus* Nelson, North Amer. Fauna No. 29, p. 140, Aug. 31, 1909.

Type Locality.—Fairbank, Cochise County, Ariz. *Range.*—Southern Arizona from Casa Grande, Pinal County (Nelson, op. cit., p. 141), east into San Simon Valley, Cochise County (Cahalane, Journ. Mamm., vol. 20, No. 4, p. 435, Nov. 14, 1939), west to Agua Dulce, Pima County (Nelson, op. cit., p. 141), and south to Hermosillo, Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 68, Feb. 15, 1938).

Lepus californicus texianus Waterhouse*

1848. *Lepus texianus* Waterhouse, A natural history of the Mammalia, vol. 2, p. 136.

1896. *Lepus texianus griseus* Mearns†, Proc. U. S. Nat. Mus., vol. 18, p. 562, June 24, 1896. (Fort Hancock, Hudspeth County, Tex.)

1903. *Lepus texianus micropus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 605, Nov. 12, 1903. (Río de las Bocas, northwest Durango, México.)

1909. *Lepus californicus texianus* Nelson, North Amer. Fauna No. 29, p. 142, Aug. 31, 1909.

1942. [*Macrotolagus*] *texianus* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Unknown, but probably in western Texas. *Range.*—Northern Durango, México, north through Chihuahua, arid western Texas (except northern Panhandle), New Mexico west of and including lower part of Pecos River Valley (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 48, Mar. 1, 1932), northeastern Arizona (valley of Little Colorado River), southeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 80, Aug. 10, 1952), and southwestern Colorado; vertical range, from about 1,500 feet above Del Rio, Tex., to 7,500 feet on mountains of New Mexico; zonal range, mainly Upper Sonoran, but extending down into Lower Sonoran and up in summer into lower border of Transition (Nelson, loc. cit.).

Lepus californicus melanotis Mearns*

1884. *Lepus callotis texianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884. (Part.)

1890. *Lepus melanotis* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 297, Feb. 21, 1890.

1909. *Lepus californicus melanotis* Nelson, North Amer. Fauna No. 29, p. 146, Aug. 31, 1909.

1942. [*Macrotolagus*] *melanotis* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Independence, Montgomery County, Kan. *Range.*—Great Plains from east central and northern Texas, northern part of Pecos River Valley and northeastern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 52, Mar. 1, 1932) northward through Oklahoma, extreme southwestern Missouri, all of Kansas and Nebraska, except perhaps extreme eastern parts, southwestern South Dakota, southeastern Wyoming, and all of Colorado east of Rocky Mountains; vertical range, from less than 1,000 feet near Independence, Kansas, to over 6,000 feet on east base of mountains in Colorado; zonal range, mainly Upper Sonoran (Nelson, loc. cit.).

Lepus californicus merriami Mearns†*

1896. *Lepus merriami* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 2, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 444, May 23, 1896.)

1909. *Lepus californicus merriami* Nelson, North Amer. Fauna No. 29, p. 148, Aug. 31, 1909.

1942. [*Macrotolagus*] *merriami* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Fort Clark, Kinney County, Tex. *Range.*—All of southern Texas from coast prairies near Trinity River west to a little above Del Rio on Río Grande, north to Mason and Antioch, and south across Río Grande through northern parts of Tamaulipas, Nuevo León, and Coahuila, México; vertical range, from sea level in southern Texas up to about 5,000 feet in mountains of Coahuila; zonal range, mainly Lower Sonoran and into lower border of Upper Sonoran in Coahuila (Nelson, loc. cit.).

Lepus californicus curti Hall*

1951. *Lepus californicus curti* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 4, p. 42, Oct. 1, 1951.

Type Locality.—Island, 88 miles south and 10 miles west of Matamoros, Tamaulipas, México. *Range.*—Islands along coast of Tamaulipas, México.

Lepus californicus altamirae Nelson†*

1904. *Lepus merriami altamirae* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 109, May 18, 1904.

1909. *Lepus altamirae* Nelson, North Amer. Fauna No. 29, p. 124, Aug. 31, 1909.

1942. [*Macrotolagus*] *altamirae* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

1951. *Lepus californicus altamirae* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 4, p. 46, Oct. 1, 1951.

Type Locality.—Altamira, Tamaulipas, México. *Range.*—Coastal plains of southern Tamaulipas, extreme northern Veracruz, and eastern border of San Luis Potosí, México; vertical range, from sea level to at least 500 feet in Tamaulipas; zonal range, Arid Tropical (Nelson, loc. cit.).

Lepus californicus asellus Miller†*

1899. *Lepus asellus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 380, Sept. 29, 1899.

1909. *Lepus californicus asellus* Nelson, North Amer. Fauna No. 39, p. 150, Aug. 31, 1909.

1942. [*Macrotolagus*] *asellus* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—San Luis Potosí, State of San Luis Potosí, México. *Range.*—Central eastern part of Mexican tableland from southern Coahuila, Nuevo León, and extreme western Tamaulipas southwest through San Luis Potosí, Zacatecas, and Aguascalientes to northeastern Jalisco; vertical range, from about 3,500 to 7,500 feet altitude in San Luis Potosí; zonal range, Upper and Lower Sonoran.

Lepus californicus festinus Nelson†*

1904. *Lepus festinus* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 108, May 18, 1904.

1909. *Lepus californicus festinus* Nelson, North Amer. Fauna No. 29, p. 151, Aug. 31, 1909.

1942. [*Macrotolagus*] *festinus* Shamel, Proc. Biol. Soc. Washington, vol. 55, p. 25, May 12, 1942.

Type Locality.—Irolo, Hidalgo, México. *Range.*—Southeastern part of Mexican tableland in States of Tlaxacala, northern Puebla, Hidalgo, northern part of State of México, Querétaro, Guanajuato, and probably northeastern Jalisco; vertical range, from about 6,000 feet to 8,500 feet in Hidalgo; zonal range, mainly Upper Sonoran, extending into upper border of Lower Sonoran (Nelson, loc. cit.).

Lepus insularis Bryant*

1891. *Lepus insularis* Bryant, Proc. California Acad. Sci., ser. 2, vol. 3, p. 92, Apr. 23, 1891.

1895. *Lepus edwardsi* Saint-Loup, Bull. Mus. Hist. Nat., Paris, vol. 1, p. 5. (Espíritu Santo Island.)

Type Locality.—Espíritu Santo Island, Gulf of California, Baja California, México. *Range.*—Espíritu Santo Island; vertical range, from sea level up to about 1,000 feet; zonal range, Lower Sonoran and upper border of Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 156, Aug. 31, 1909).

Genus SYLVILAGUS[61] Gray

1867. *Sylvilagus* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 221, September 1867. (Type, *Lepus sylvaticus* Bachman=*Lepus floridanus mallurus* Thomas.)

Subgenus SYLVILAGUS Gray (cottontails)

1897. *Microlagus* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 660. (Type, *Lepus cinerascens* J. A. Allen.)

1897. *Limnolagus* Mearns, Science, new ser., vol. 5, p. 393, Mar. 5, 1897. (Type, *Lepus aquaticus* Bachman. For status see Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 333, May 26, 1950.)

1900. *Brachylagus* Miller, Proc., Biol. Soc. Washington, vol. 13, p. 157, June 13, 1900. (Type, *Lepus idahoensis* Merriam. Regarded as identical with *Sylvilagus* by Grinnell, Dixon and Linsdale, Univ. California Publ. Zool., vol. 35, p. 562, October 1930.)

Sylvilagus floridanus floridanus (J. A. Allen)*

1890. *Lepus sylvaticus floridanus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 160, Oct. 8, 1890.

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[61] Revised by Nelson, North Amer. Fauna No. 29, pp. 150–275, Aug. 31, 1909. For revision of geographic ranges and marginal records, see Hall, Univ. Kansas Publ., Mus. Nat. Hist. vol. 5, No. 10, pp. 138–170, Dec. 15, 1951.

1904. *Sylvilagus floridanus* Lyon, Smithsonian Misc. Coll., vol. 45, p. 322, June 15, 1904.

Type Locality.—Sebastian River, Brevard County, Fla. *Range.*—All of peninsular Florida (including coastal islands) south of Sebastian River and thence northward to San Mateo, Putnam County, on east side, and to an unknown distance on west side; vertical range, from sea level up to about 100 feet; zonal range, mainly Lower Austral (Nelson, North Amer. Fauna No. 29, p. 164, Aug. 31, 1909).

Sylvilagus floridanus mallurus (Thomas)*

1884. *Lepus sylvaticus sylvaticus* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 601, Nov. 29, 1884. (Part.)

1898. *L[epus] n[uttali] mallurus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 2, p. 320, October 1898.

1904. *Sylvilagus floridanus mallurus* Lyon, Smithsonian Misc. Coll., vol. 45, p. 323, June 15, 1904.

Type Locality.—Raleigh, Wake County, N. C. *Range.*—Mainly east of Allegheny Mountains from Long Island and lower Hudson Valley in extreme southeastern New York south through New Jersey, Delaware, eastern Pennsylvania, eastern West Virginia, Maryland, Virginia, North and South Carolina, Georgia (except northwestern part), and west along Gulf Coast to near Mobile Bay, and northward through Alabama into Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 289, Feb. 14, 1939): also northwestern and north-central Florida south to about Lake Julian, Polk County; vertical range, from near sea level in North Carolina to about 6,000 feet on Roan Mountain; zonal range, from Lower Austral up through Transition, mainly Upper Austral (Nelson, North Amer. Fauna No. 29, p. 166, Aug. 31, 1909). Recorded also from Litchfield County, Conn. (Goodwin, Journ. Mamm., vol. 13, No. 1, p. 38, Feb. 9, 1932).

Sylvilagus floridanus hitchensi Mearns†*

1911. *Sylvilagus floridanus hitchensi* Mearns, Proc. U. S. Nat. Mus., vol. 39, p. 227, Jan. 9, 1911.

Type Locality.—Smiths Island, Northampton County, Va. *Range.*—Known only from Smiths Island and Fishermans Island, off Atlantic coast of Northampton County, Va. (Handley and Patton, Wild mammals of Virginia, p. 187, 1947).

Sylvilagus floridanus ammophilus A. H. Howell†*

1939. *Sylvilagus floridanus ammophilus* A. H. Howell, Journ. Mamm., vol. 20, No. 3, p. 365, Aug. 14, 1939.

Type Locality.—Oak Lodge, East peninsula, opposite Micco, Brevard County, Fla. *Range.*—Known from type locality only.

Sylvilagus floridanus mearnsii (J. A. Allen)*

1894. *Lepus sylvaticus mearnsii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 171, May 31, 1894.

1904. *Sylvilagus floridanus mearnsi* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Fort Snelling, Hennepin County, Minn. *Range.*—From north side of St. Lawrence River and Lake Ontario (Montreal, Ottawa, Kingston, and Toronto) in southern Ontario, Canada (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 103, Jan. 24, 1947) southward west of Allegheny Mountains in central New York, central Pennsylvania, western West Virginia, and eastern Kentucky; west through Lower Peninsula and southwestern part of Upper Peninsula of Michigan (Burt, Mammals of Michigan, p. 250, 1946) and Wisconsin to western Minnesota; and south through Iowa to Kansas (Neosho Falls and Marion County), northern Missouri, Illinois, Indiana, and Ohio; vertical range, from about 500 feet in western New York to about 2,000 feet in mountains of western Pennsylvania; zonal range, mainly Upper Austral, but extending into lower part of Transition (Nelson, North. Amer. Fauna No. 29, p. 169, Aug. 31, 1909).

Sylvilagus floridanus similis Nelson†*

1907. *Sylvilagus floridanus similis* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 82, July 22, 1907.

Type Locality.—Valentine, Cherry County, Nebr. *Range.*—Dry plains (mainly along wooded streams) of extreme western Minnesota, North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 134, Jan. 8, 1927), extreme southeastern Montana (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 5, p. 52, Oct. 1, 1951), eastern South Dakota, Nebraska (except possibly Missouri bottom lands), northwestern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 85, September 1944), northeastern Colorado (along tributaries of Platte River to base of mountains near Denver), and southeastern Wyoming; vertical range, from about 1,500 feet in northeastern Nebraska to over 5,000 feet west of Denver, Colo.; zonal range, mainly Upper Sonoran (Nelson, North Amer. Fauna No. 29, p. 172, Aug. 31, 1909). Recorded also from Red River Valley north to Winnipeg and locally westward to Souris River, Manitoba (Soper, Journ. Mamm., vol. 27, No. 2, p. 150, May 14, 1946; see also Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 104, Jan. 24, 1947).

Sylvilagus floridanus alacer (Bangs)*

1896. *Lepus sylvaticus alacer* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 136, Dec. 28, 1896.

1904. *Sylvilagus floridanus alacer* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Stilwell, Boston Mountains, Adair County, Okla. *Range.*—Gulf coast, from Bay St. Louis, Miss. (Nelson, North Amer. Fauna No. 29, p. 176, Aug. 31, 1909), westward to Port Lavaca, Tex. (Nelson, loc. cit.), and thence north through Texas (Brazos and Henrietta; Nelson, loc. cit.), Oklahoma (Norman; Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 128, July 1939), to southeastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 85, September 1944), north-central Missouri (Columbia; Nelson, loc. cit.), and Ozark, Johnson County, southern Illinois (Necker and Hatfield, Chicago Acad. Sci., vol. 6, No. 3, p. 56, May 15, 1941); eastward through Arkansas, Louisiana, and Mississippi to extreme western Tennessee (Samburg and Raleigh; Nelson, loc. cit.).

Sylvilagus floridanus llanensis Blair*

1938. *Sylvilagus floridanus llanensis* Blair, Occ. Pap. Mus. Zool. Univ. Michigan No. 380, p. 1, June 17, 1938.

Type Locality.—Old "F" Ranch headquarters, Quitaque, Briscoe County, Tex. *Range.*—Southwestern fourth of Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 85, September 1944), western half of Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 138, July 1939), and Texas Panhandle south to Howard County (Blair, op. cit., p. 3).

Sylvilagus floridanus chapmani (J. A. Allen) *

1899. *Lepus floridanus chapmani* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 12, Mar. 4, 1899.

1899. *Lepus floridanus caniclunis* Miller†, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 388, Oct. 5, 1899. (Fort Clark, Kinney County, Tex.)

1902. *Lepus simplicicanus* Miller†, Proc Biol. Soc. Washington, vol. 15, p. 81, Apr. 25, 1902. (Brownsville, Cameron County, Tex.)

1904. *Sylvilagus floridanus chapmani* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Corpus Christi, Nueces County, Tex. *Range.*—Arid parts of middle and southern Texas from east of Corpus Christi to mouth of Pecos River and from near Abilene south across Rio Grande into northeastern México to central Tamaulipas, most of Nuevo León, and northeastern Coahuila; vertical range, from sea level near Corpus Christi up to about 1,000 feet altitude near Fort Clark, Tex.; zonal range, mainly Lower Sonoran (Nelson, North Amer. Fauna No. 29, p. 176, Aug. 31, 1909).

Sylvilagus floridanus robustus (V. Bailey) †*

1905. *Lepus pinetis robustus* V. Bailey, North Amer. Fauna No. 25, p. 159, Oct. 24, 1905.

1909. *Sylvilagus robustus* Nelson, North Amer. Fauna No. 29, p. 194, Aug. 31, 1909.

1951. *Sylvilagus floridanus robustus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 5, p. 56, Oct. 1, 1951.

Type Locality.—At altitude of 6,000 feet in Davis Mountains, Jeff Davis County, Tex. *Range.*—Davis, Chinati, and Chisos Mountains in southwestern Texas; vertical range, mainly above 6,000 feet in Davis Mountains; zonal range, mainly Transition (Nelson, loc. cit.).

Sylvilagus floridanus cognatus Nelson†*

1907. *Sylvilagus cognatus* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 82, July 22, 1907.

1951. *Sylvilagus floridanus cognatus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 5, p. 55, October 1, 1951.

Type Locality.—Tajique, near summit of Manzano Mountains, Torrance County, N. Mex. Altitude, about 10,000 feet. *Range.*—Known from four isolated mountain ranges (Manzano, Capitan, Datil, and Gallinas Mountains) in central New Mexico; vertical range, from 7,300 feet on Mesa de la Yegua to 10,000 feet near summit of Manzano Mountains (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 62, Mar. 1, 1932).

Sylvilagus floridanus holzneri (Mearns)†*

1896. *Lepus sylvaticus holzneri* Mearns, Proc. U. S. Nat. Mus., vol. 18, p. 554, June 24, 1896.

1896. [*Lepus sylvaticus*] subspecies *rigidus* Mearns†, Proc. U. S. Nat. Mus., vol. 18, p. 555, June 24, 1896. (Carrizalillo Mountains, near monument No. 31, Mexican boundary line, Hidalgo County, N. Mex.)

1903. *Lepus (Sylvilagus) durangae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 609, Nov. 12, 1903. (Rancho Bailon, northwestern Durango, México.)

1904. *Sylvilagus floridanus holzneri* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Douglas spruce zone, near summit of Huachuca Mountains, Cochise County, Ariz. *Range.*—Higher mountain ranges of southern Arizona (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 5, p. 54, Oct. 1, 1951) and southwestern New Mexico and thence south through the Sierra Madre of western México, in northeastern Sonora, Chihuahua, Durango, western Zacatecas, northwestern Jalisco, and northern Nayarit; vertical range, from about 6,000 to 10,000 feet in southwestern Chihuahua; zonal range, mainly Transition and lower border of Canadian, ranging down into Upper Sonoran in winter (Nelson, North Amer. Fauna No. 29, p. 178, Aug. 31, 1909).

Sylvilagus floridanus subcinctus (Miller)†*

1899. *Lepus floridanus subcinctus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, , p. 386, Oct. 5, 1899.

1904. *Sylvilagus floridanus subcinctus* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Hacienda El Molino, near Negrete, Michoacán, México. *Range.*—Mainly arid plains of southwestern part of Mexican tableland and from western Guanajuato to northern Michoacán and southeastern Jalisco; vertical range, from about 3,500 to 6,000 feet in Jalisco; zonal range, mainly Upper and Lower Sonoran, but extends down into upper border of Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 180, Aug. 31, 1909).

Sylvilagus floridanus restrictus Nelson†*

1907. *Sylvilagus floridanus restrictus* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 82, July 22, 1907.

Type Locality.—Zapotlán, Jalisco, México. *Range.*—Mainly oak and pine forested slopes of Sierra Madre in Michoacán, southern and western Jalisco, and southeastern Nayarit, México; vertical range, from about 4,000 to 9,500 feet in Michoacán; zonal range, mainly Upper Sonoran and Transition, but ranging down on south slope of Sierra Madre through Lower Sonoran to border of Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 181, Aug. 31, 1909).

Sylvilagus floridanus orizabae (Merriam)†*

1893. *Lepus orizabae* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 143, Dec. 29, 1893.

1903. *Lepus floridanus persultator* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3 (February), p. 147, Mar. 20, 1903. (Puebla, State of Puebla, México.)

1909. *Sylvilagus floridanus orizabae* Nelson, North Amer. Fauna No. 29, p. 183, Aug. 31, 1909.

Type Locality.—Volcán de Orizaba, Puebla, México. Altitude, about 9,500 feet. *Range.*—Most of high mountains and bordering plains on southeastern part of Mexican tableland, from Volcán de Orizaba and Cofre de Perote on western border of central Veracruz through northern half of Puebla, all of Tlaxcala, most of State of México, Distrito Federal, Hidalgo, Guanajuato, San Luis Potosí, and southern Coahuila; vertical range, from about 7,000 to over 14,000 feet in eastern Puebla; zonal range, from Upper Sonoran through Transition to Arctic-Alpine division of Boreal, but mainly Transition (Nelson, loc. cit.).

Sylvilagus floridanus connectens (Nelson) †*

1904. *Lepus floridanus connectens* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 105, May 18, 1904.

1909. *Sylvilagus floridanus connectens* Lyon and Osgood, Bull. U. S. Nat. Mus., No. 62, p. 32, Jan. 28, 1909.

Type Locality.—Chichicaxtle, central Veracruz, México. *Range.*—Coastal plain and eastern slope of adjacent mountains of eastern México from Altamira, in southern Tamaulipas, through eastern San Luis Potosí to Pinal de Amoles, in northeastern Querétaro, south to Río Papaloápam in Veracruz, and through eastern Puebla to Mount Zempoaltepec in eastern Oaxaca; vertical range, from sea level near Veracruz up to about 9,000 feet on Mount Zempoaltepec; zonal range, mainly Arid and Humid Tropical, extending up through Upper Sonoran (Nelson, North Amer. Fauna No. 29, p. 185, Aug. 31, 1909).

Sylvilagus floridanus russatus (J. A. Allen) *

1904. *Lepus* (*Sylvilagus*) *russatus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 31, Feb. 29, 1904.

1909. *Sylvilagus floridanus russatus* Nelson, North Amer. Fauna No. 29, p. 186, Aug. 31, 1909.

Type Locality.—Pasa Nueva, southern Veracruz, México. *Range.*—Coast lowlands of southern Veracruz and thence east into adjacent part of Tabasco and south to lower slopes of the Cordillera; vertical range, from sea level to about 3,000 feet in southern Veracruz; zonal range, Humid and semihumid Tropical (Nelson, loc. cit.).

Sylvilagus floridanus aztecus (J. A. Allen) *

1890. *Lepus sylvaticus aztecus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 188, Dec. 10, 1890.

1904. *Sylvilagus floridanus aztecus* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Tehuantepec, Oaxaca, México. *Range.*—Coastal plain and adjacent foothills of southern Oaxaca and extreme western Chiapas nearly or quite to border of Guatemala; vertical range, from sea level to about 2,000 feet in southern Oaxaca; zonal range, Arid and semihumid Tropical (Nelson, North Amer. Fauna No. 29, p. 187, Aug. 31, 1909).

Sylvilagus floridanus chiapensis (Nelson) †*

1904. *Lepus floridanus chiapensis* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 106, May 18, 1904.

1909. *Sylvilagus floridanus chiapensis* Lyon and Osgood, Bull. U. S. Nat. Mus., No. 62, p. 32, Jan. 28, 1909.

Type Locality.—San Cristóbal, Chiapas, México. *Range.*—Interior of Chiapas, mainly in highlands, and adjacent highlands of Guatemala; vertical range, from about 2,000 to over 10,000 feet in Chiapas and Guatemala; zonal range, mainly Upper Sonoran and Transition, but ranging down to upper border of Tropical (Nelson, North Amer. Fauna No. 29, p. 189, Aug. 31, 1909).

Sylvilagus floridanus yucatanicus (Miller)†*

1899. *Lepus floridanus yucatanicus* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 384, Sept. 29, 1899.

1904. *Sylvilagus floridanus yucatanicus* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Mérida, Yucatán, México. *Range.*—Coastal plain of Yucatán, Campeche, and Tabasco; vertical range, from sea level to about 500 feet in Campeche; zonal range, Arid and semiarid Tropical (Nelson, North Amer. Fauna No. 29, p. 190, Aug. 31, 1909).

Sylvilagus floridanus hondurensis Goldman†*

1932. *Sylvilagus floridanus hondurensis* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 122, July 30, 1932.

Type Locality.—Monte Redondo, about 30 miles northwest of Tegucigalpa, Francisco Morazán, Honduras. Altitude, about 5,100 feet. *Range.*—West and central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 150, May 29, 1942) south to Chontales district in south-central Nicaragua.

Sylvilagus floridanus costaricensis Harris

1933. *Sylvilagus floridanus costaricensis* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 266, p. 3, June 28, 1933.

Type Locality.—Hacienda Santa María, on western slope of Cordillera de Guanacaste, 22 miles northeast of Liberia, Guanacaste, Costa Rica. Altitude, 3,200 feet. *Range.*—Northwestern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 357, Dec. 31, 1946).

Sylvilagus transitionalis (Bangs)*

1895. *Lepus sylvaticus transitionalis* Bangs, Proc. Boston Soc. Nat. Hist., vol. 26, p. 405, Jan. 31, 1895.

1909. *Sylvilagus transitionalis* Nelson, North Amer. Fauna No. 29, p. 195, Aug. 31, 1909.

Type Locality.—Liberty Hill, New London County, Conn. *Range.*—New England States north to Montpelier, Vt. (Osgood, Journ. Mamm., vol. 19, No. 4, p. 440, Nov. 14, 1938), southern New Hampshire, extreme southwestern Maine, and southwest through eastern New York (including southern end of Lake George and Long Island), New Jersey, eastern Pennsylvania, and western Maryland; also along Allegheny Mountains through West Virginia to Roan Mountain in North Carolina, Great Smoky Mountains in eastern Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 291, Feb. 14, 1939), Brasstown Bald Mountain in extreme northern Georgia, and northeastern Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 71, Oct. 28, 1921).

Sylvilagus nuttallii nuttallii (Bachman)*

1837. *Lepus nuttallii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, p. 345.

1884. *Lepus sylvaticus nuttalli* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884. (Part.)

1904. *Sylvilagus nuttallii* Lyon, Smithsonian Misc. Coll., vol. 45, p. 323, June 15, 1904.

Type Locality.—Near Vale, Malheur River Valley, Malheur County, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 107, Aug. 29, 1936). *Range.*—From Anarchist Mountain, Osoyoos, British Columbia (Cowan, Murrelet, vol. 21, p. 9, Apr. 30, 1940), southward through Columbian Plateau, Okanogan Valley, Yakima Valley, and Columbia Valley in eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 387, Apr. 9, 1948), Oregon east of Cascades (V. Bailey, loc. cit.), extreme west-central Idaho (Davis, The Recent mammals of Idaho, p. 361, Apr. 5, 1939), and northwestern Nevada (Hall, Mammals of Nevada, p. 611, July 1, 1946), to Great Basin area of northeastern California, from central Siskiyou County east to Modoc County (Orr, Occ. Pap. California Acad. Sci. No. 19, pp. 98–99, May 25, 1940).

Sylvilagus nuttallii pinetis (J. A. Allen) *

1894. *Lepus sylvaticus pinetis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 348, Dec. 7, 1894.

1909. *Sylvilagus nuttalli pinetis* Nelson, North Amer. Fauna No. 29, p. 207, Aug. 31, 1909.

Type Locality.—White Mountains, south of Mount Ord, Apache County, Ariz. *Range.*—Recorded from Springerville and White Mountains in middle Arizona (Nelson, op. cit., p. 211), mountains in northern New Mexico (V. Bailey, North Amer. Fauna, No. 53 (December 1931), p. 60, Mar. 1, 1932), Navajo Mountain region of southeastern Utah (Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 454, Dec. 31, 1935), and mountainous portions of Colorado except in northwestern corner (Warren, The mammals of Colorado, . . . , p. 270, 1942); vertical range, from approximately 6,000 to 11,500 feet in Pike's Peak region, Colo.; zonal range, mainly Transition and lower edge of Canadian, moving down in winter to border of Upper Sonoran.

Sylvilagus nuttallii grangeri (J. A. Allen) *

1895. *Lepus sylvaticus grangeri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 264, Aug. 21, 1895.

1904. *Lepus l*[*aticinctus*] *perplicatus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 255, Jan. 7, 1904. (Hanopee Canyon, Panamint Mountains, Inyo County, Calif.)

1909. *Sylvilagus nuttalli grangeri* Nelson, North Amer. Fauna No. 29, p. 204, Aug. 31, 1909.

Type Locality.—Hill City, Black Hills, Pennington County, S. Dak. *Range.*—Southern Alberta from Cardston east to western escarpment of Cypress Hills, and north at least to Red Deer Valley (Steveville), and in southeastern Saskatchewan from Cypress Hills eastward to Eastend, Frenchman River, Val Marie, Lonesome Butte, south of Wood Mountain, the easternmost record being Waniska Coulee at Big Muddy Lake (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 105, Jan. 24, 1947); extreme western North Dakota (V. Bailey, North Amer. Fauna, No. 49 (1926), p. 137, Jan. 8, 1927); western South Dakota; most of Montana east of Continental Divide; Wyoming except northwestern part; extreme northwestern Colorado; southern half of Idaho (Davis, The Recent mammals of Idaho, p. 361, Apr. 5, 1939); most of Utah; northern two-thirds of Nevada except northwestern corner (Hall, Mammals of Nevada, p. 612, July 1, 1946); and mountainous and plateau areas of California, east of crest of Sierra Nevada, from Alpine County south to Panamint Mountains of Inyo County (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 101, May 25, 1940).

Sylvilagus audubonii audubonii (Baird)†*

1858. *Lepus audubonii* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 608, July 14, 1858.

1884. *Lepus sylvaticus auduboni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1909. *Sylvilagus auduboni* Nelson, North Amer. Fauna No. 29, p. 214, Aug. 31, 1909.

Type Locality.—San Francisco, San Francisco County, Calif. *Range.*—From Tehama County at northern end of Sacramento Valley, south to northeastern Merced County in northern San Joaquin Valley, also including lower Salinas Valley in northern Monterey County; mainly inland in distribution, reaching coast only in vicinity of San Francisco Bay and Monterey Bay; zonal range, Lower and Upper Sonoran; vertical range, from sea level to approximately 1,500 feet (Orr, Occ. Pap. California Acad. Sci. No. 19, pp. 98–99, May 25, 1940).

Sylvilagus audubonii vallicola Nelson†*

1907. *Sylvilagus auduboni vallicola* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 82, July 22, 1907.

Type Locality.—San Emigdio ranch (25 miles southwest of Bakersfield), Kern County, Calif. *Range.*—From central Monterey County south through upper Salinas Valley to Cuyama Valley; inland, inhabiting southern half of San Joaquin Valley from southwestern Merced County to Tehachapi and San Emigdio Ranges; zonal range, mostly Lower Sonoran, extending locally into Upper Sonoran; vertical range, from near sea level up to approximately 4,000 feet (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 116, May 25, 1940).

Sylvilagus audubonii sanctidiegi (Miller)†*

1899. *Lepus floridanus sanctidiegi* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 389, Oct. 5, 1899.

1909. *Sylvilagus auduboni sanctidiegi* Nelson, North Amer. Fauna No. 29, p. 218, Aug. 31, 1909.

Type Locality.—Mexican boundary monument No. 258, shore of Pacific Ocean, San Diego County, Calif. *Range.*—Coastal southern California, west of crests of coast ranges, from Ventura County south to Baja California (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 119, May 25, 1940); and Baja California from coast to western base of Laguna Hanson and San Pedro Mártir mountains and from northern boundary south to El Rosario River; vertical range, from sea level at San Diego up to over 4,000 feet on mountains to the east; zonal range, mainly Upper Sonoran (Nelson, loc. cit.).

Sylvilagus audubonii confinis (J. A. Allen)*

1898. *Lepus arizonae confinis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 146, Apr. 12, 1898.

1909. *Sylvilagus auduboni confinis* Nelson, North Amer. Fauna No. 29, p. 220, Aug. 31, 1909.

Type Locality.—Playa María, Baja California, México. *Range.*—Baja California from Rosario River on west coast and Santa Rosalía on east side south to

Cape San Lucas; vertical range, from sea level on west coast up to about 3,500 feet in interior of peninsula; zonal range, mainly Lower Sonoran, reaching upper border of Arid Tropical (Nelson, loc. cit.).

Sylvilagus audubonii arizonae (J. A. Allen) †*

1877. [*Lepus sylvaticus*] var. *arizonae* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 332, August 1877.

1884. *Lepus sylvaticus arizonae* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1896. *Lepus arizonae major* Mearns†, Proc. U. S. Nat. Mus., vol. 18, p. 557, June 24, 1896. (Calabasas, Santa Cruz County, Arizona.)

1904. *Lepus laticintus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 254, Jan. 7, 1904. (Oro Grande, Mohave Desert, San Bernardino County, Calif.)

1904. *Lepus l*[*aticinctus*] *rufipes* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 254, Jan. 7, 1904. (Furnace Creek, Death Valley, Inyo County, Calif.)

1909. *Sylvilagus auduboni arizonae* Nelson, North Amer. Fauna No. 29, p. 222, Aug. 31, 1909.

Type Locality.—Beal's Springs, 50 miles west of Fort Whipple, Yavapai County [=2 miles from Kingman, Mohave County; see Grinnell, Univ. California Publ. Zool., vol. 40, p. 203, Sept. 26, 1933], Ariz. *Range.*—Desert regions of southeastern California from near Benton Station, Mono County, south through Inyo County to and including Mohave and Colorado Deserts (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 122, May 25, 1940); northeastern Baja California; nearly all of Arizona below 6,000 feet (except northeastern part) from westerly slopes of San Francisco and White Mountains south in low deserts of northern Sonora to Tecoripa (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 69, Feb. 15, 1938); and north through southern Nevada to Fish Lake Valley, White River Valley and extreme eastern White Pine County (Hall, Mammals of Nevada, p. 613, July 1, 1946); and into southwestern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 86, Aug. 10, 1952).

Sylvilagus audubonii goldmani (Nelson) †*

1904. *Lepus arizonae goldmani* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 107, May 18, 1904.

1909. *Sylvilagus auduboni goldmani* Nelson, North Amer. Fauna No. 29, p. 225, Aug. 31, 1909.

Type Locality.—Culiacan, Sinaloa, México. *Range.*—Coastal plain and adjacent foothills from Guaymas, southern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 70, Feb. 15, 1938), south to Culiacán in central Sinaloa, and Chacala in extreme western Durango, México; vertical range, from near sea level on west coast of Sinaloa up to about 2,500 feet; zonal range, Lower Sonoran and upper part of Arid Tropical (Nelson, loc. cit.).

Sylvilagus audubonii minor (Mearns) †*

1896. *Lepus arizonae minor* Mearns, Proc. U. S. Nat. Mus., vol. 18, p. 557, June 24, 1896.

1907. *S[ylvilagus] a[uduboni] minor* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 83, July 22, 1907.

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Extreme western Texas (mainly west of Guadalupe, Davis, and Chisos Mountains; Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 38, Aug. 7, 1942), and Rio Grande Valley above mouth of Pecos River; Lower Sonoran Zone of Rio Grande and Tularosa River Valleys and over Deming Plain of southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 56, Mar. 1. 1932) into extreme southeastern corner of Arizona; and thence south through plains and foothills of Chihuahua to northern Durango, México, east of Sierra Madre; vertical range, from about 3,500 to 6,000 feet in Chihuahua; zonal range, mainly Lower Sonoran, extending up into Upper Sonoran (Nelson, North Amer. Fauna No. 29, p. 226, Aug. 31, 1909).

Sylvilagus audubonii cedrophilus Nelson†*

1907. *Sylvilagus auduboni cedrophilus* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 83, July 22, 1907.

Type Locality.—Cactus Flat, 20 miles north of Cliff, Grant County, N. Mex. *Range.*—Mainly juniper and pinyon pine belt of foothills and elevated mesas of central and west-central New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 57, Mar. 1, 1932) westward along Mogollon Range to east side of San Francisco Mountain in east-central Arizona; vertical range, from about 5,000 to 8,000 feet in western New Mexico; zonal range, mainly Upper Sonoran (Nelson, North Amer. Fauna No. 29, p. 229, Aug. 31, 1909).

Sylvilagus audubonii warreni Nelson†*

1907. *Sylvilagus auduboni warreni* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 83, July 22, 1907.

Type Locality.—Coventry, Montrose County, Colo. *Range.*—Southwestern Colorado (Warren, The mammals of Colorado, p. 273, 1942), southeastern Utah, northwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 59, Mar. 1, 1932), and northeastern Arizona (west to Holbrook and Winslow in valley of Little Colorado River); vertical range, from about 5,000 to 8,500 feet in northwestern New Mexico; zonal range, mainly Upper Sonoran, extending into Transition and Lower Sonoran (Nelson, North Amer. Fauna No. 29, p. 231, Aug. 31, 1909).

Sylvilagus audubonii baileyi (Merriam)†*

1897. *Lepus baileyi* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 148, June 9, 1897.

1909. *Sylvilagus auduboni baileyi* Nelson, North Amer. Fauna No. 29, p. 232, Aug. 31, 1909.

Type Locality.—Spring Creek, east side of Bighorn Basin, Bighorn County, Wyo. *Range.*—Plains and valleys of eastern Montana, most of Wyoming, northeastern Utah, northwestern and eastern Colorado (east of foothills), extreme western North Dakota (along Little Missouri River; V. Bailey, North Amer. Fauna No. 49 (1926), p. 137, Jan. 8, 1927), western South Dakota, western Nebraska, and northwestern Kansas; vertical range from about 3,000 feet in Kansas to 7,000 feet in Colorado; zonal range, mainly arid Upper Sonoran, but ranging into lower part of Transition (Nelson, loc. cit.).

Sylvilagus audubonii neomexicanus Nelson†*

1907. *Sylvilagus auduboni neomexicanus* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 83, July 22, 1907.

Type Locality.—Fort Sumner, De Baca County, N. Mex. *Range.*—From Pecos County (Fort Stockton), northern Brewster County (28 miles south of Alpine; Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 39, Aug. 7, 1942), and Jeff Davis and Culberson Counties in southwestern Texas northward through Pecos River Valley to about Fort Sumner, New Mexico, and eastward to Abilene and Wichita Falls, Tex.; north through eastern New Mexico, western Texas, and western Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 129, July 1939) to southwestern Kansas (eastward to Clark County; Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 86, September 1944); vertical range, from about 2,500 feet in western Texas to 5,000 feet in eastern New Mexico; zonal range, Lower Sonoran and lower part of Upper Sonoran (Nelson, North Amer. Fauna No. 29, p. 234, Aug. 31, 1909).

Sylvilagus audubonii parvulus (J. A. Allen) *

1904. *Lepus* (*Sylvilagus*) *parvulus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 34, Feb. 29, 1904.

1909. *Sylvilagus auduboni parvulus* Nelson, North Amer. Fauna No. 29, p. 236, Aug. 31, 1909.

Type Locality.—Apam, Hidalgo, México. *Range.*—Eastern and southeastern part of Mexican tableland from Puebla north to Río Grande Valley of Texas (from Rio Grande City to mouth of Pecos River) and northward in Texas at least to San Diego (Duval County) and Cotulla (LaSalle County); vertical range, from below 500 feet on Río Grande to over 8,000 feet on southern end of tableland in México; zonal range, Upper and Lower Sonoran (Nelson, loc. cit.).

Sylvilagus cunicularius cunicularius (Waterhouse) *

1848. *Lepus cunicularius* Waterhouse, A natural history of the Mammalia, vol. 2, p. 132.

1890. *Lepus verae-crucis* Thomas, Proc. Zool. Soc. London, pt. 1, p. 74, June 1890. (Las Vigas, Veracruz, México.)

1907. *Lepus cunicularius* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 51, Apr. 18, 1907.

1909. *Sylvilagus cunicularius* Nelson, North Amer. Fauna No. 29, p. 239, Aug. 31, 1909.

Type Locality.—Zacualpan (probably in State of México), México. *Range.*—Mountains about extreme southern end of Mexican tableland and bordering slopes and valleys on both sides from Cofre de Perote and Mount Orizaba in central-western Veracruz and Mount Zempoaltepec, eastern Oaxaca, west through southern Hildalgo, Puebla, Tlaxcala, México, northern Michoacán, Morelos, northern Guerrero, and northern Oaxaca; vertical range, from about 2,000 feet in Guerrero up to over 11,000 feet on Mount Orizaba and on mountains about Valley of México; zonal range, from upper part of Arid Tropical up through Sonoran and Transition into Canadian (Nelson, loc. cit.).

Sylvilagus cunicularius pacificus (Nelson) †*

1904. *Lepus veraecrucis pacificus Nelson*, Proc. Biol. Soc. Washington, vol. 17, p. 104, May 18, 1904.

1909. *Sylvilagus cunicularius pacificus* Lyon and Osgood, U. S. Nat. Mus. Bull. 62, p. 35, Jan. 28, 1909.

Type Locality.—Acapulco, Guerrero, México. *Range.*—Coastal plain and adjacent foothills of southwestern México from extreme southern Michoacán through Guerrero to Pluma, Oaxaca; vertical range, from sea level in Guerrero to about 2,500 feet in foothills; zonal range, Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 242, Aug. 31, 1909).

Sylvilagus cunicularius insolitus (J. A. Allen) *

1890. *Lepus insolitus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 189, Dec. 10, 1890.

1909. *Sylvilagus cunicularius insolitus* Nelson, North Amer. Fauna No. 29, p. 243, Aug. 31, 1909.

Type Locality.—Plains of Colima, Jalisco, México. *Range.*—Coastal plains of western México from Michoacán north through Colima and Nayarit to Mazatlán, Sinaloa; vertical range, from sea level in Colima to about 3,500 feet on west base of Volcán de Colima; zonal range, Arid Tropical (Nelson, loc. cit.).

Sylvilagus graysoni (J. A. Allen) †*

1877. *Lepus graysoni* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 347, August 1877.

1884. *Lepus graysoni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1904. *Sylvilagus graysoni* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—Tres Marías Islands, Nayarit, México; probably María Madre Island (see Nelson, North Amer. Fauna No. 14, p. 16, Apr. 29, 1899). *Range.*—Tres Marías Islands, western México; vertical range, from sea level to about 200 feet; zonal range, Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 244, Aug. 31, 1909).

Sylvilagus idahoensis (Merriam) †*

1891. *Lepus idahoensis* Merriam, North Amer. Fauna No. 5, p. 76, July 30, 1891.

1904. *Brachylagus idahoensis* Lyon, Smithsonian Misc. Coll., vol. 45, p. 323, June 15, 1904.

1930. *Sylvilagus idahoensis* Grinnell, Dixon and Linsdale, Univ. California Publ. Zool., vol. 35, p. 553, October 1930.

Type Locality.—Pahsimeroi Valley, near Goldburg, Custer County, Idaho (see Davis, The Recent mammals of Idaho, p. 363, Apr. 5, 1939). *Range.*—From Bannack, Beaverhead County, southwestern Montana (Davis, Murrelet, vol. 18, Nos. 1–2, p. 27, Sept. 4, 1937), south through eastern and southern Idaho to southwestern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 51, Aug. 10, 1952), and to Sharp, Nye County, Nev. (Hall, Mammals of Nevada, p. 614, July 1, 1946); westward to Mono County (Severaid, Journ. Mamm., vol. 31, No. 1, p. 1, Feb. 21, 1950) and to Great Basin region of northeastern California (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 192, May 25, 1940), eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 110, Aug. 29, 1936), and apparently an isolated distribution on central part of Columbian Plateau in Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 390, Apr. 9, 1948). Recorded also near Cedar City, Iron County, in southwestern Utah (Schantz, Journ. Mamm., vol. 28, No. 2, p. 187, June 1, 1947).

Sylvilagus bachmani bachmani (Waterhouse) *

1839. *Lepus bachmani* Waterhouse, Proc. Zool. Soc. London, 1838, pt. 6, p. 103, Feb. 7, 1839.

1884. *Lepus trowbridgei* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884.

1904. *Sylvilagus bachmani* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

Type Locality.—California, probably between Monterey and Santa Barbara; later, fixed as near San Luis Obispo (Nelson, North Amer. Fauna No. 29, p. 247, Aug. 31, 1909). *Range.*—From vicinity of Monterey, Monterey County, south along coast to northern Santa Barbara County; zonal range, Upper Sonoran and Transition; vertical range, from sea level to probably over 3,000 feet in Santa Lucia Mountains (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 146, May 25, 1940).

Sylvilagus bachmani ubericolor (Miller) †*

1899. *Lepus bachmani ubericolor* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 383, Sept. 29, 1899.

1904. *Sylvilagus bachmani ubericolor* Lyon, Smithsonian Misc. Coll., vol. 45, p. 337, June 15, 1904.

Type Locality.—Beaverton, Washington County, Oreg. *Range.*—From near Columbia River (Beaverton) south through humid coast belt of Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 109, Aug. 29, 1936) and northwestern California to Marin County (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 151, May 25, 1940); vertical range, from sea level to at least 1,800 feet; zonal range, mainly humid Transition.

Sylvilagus bachmani tehamae Orr

1935. *Sylvilagus bachmani tehamae* Orr, Proc. Biol. Soc. Washington, vol. 48, p. 27, Feb. 6, 1935.

Type Locality.—Dale's on Paine Creek, Tehama County, Calif. *Range.*—From northern Shasta and Trinity Counties (possibly Siskiyou County), south along inner northern coast ranges to Lake and Yolo Counties, and south along western slopes of Sierra Nevada to Placer County; south in Sacramento Valley at least to Butte County; vertical range, from 100 to 5,500 feet; zonal range, mostly Upper Sonoran and Transition (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 153, May 25, 1940).

Sylvilagus bachmani mariposae Grinnell and Storer

1916. *Sylvilagus bachmani mariposae* Grinnell and Storer, Univ. California Publ. Zool., vol. 17, No. 1, p. 7, Aug. 23, 1916.

Type Locality.—McCauley Trail, near El Portal, Mariposa County, Calif. Altitude, 4,000 feet. *Range.*—Along western slopes of Sierra Nevada from Eldorado County south to Piute Mountains in Kern County; vertical range, from 600 to 6,700 feet; zonal range, Upper Sonoran and low Transition (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 157, May 25, 1940).

Sylvilagus bachmani riparius Orr

1935. *Sylvilagus bachmani riparius* Orr, Proc. Biol. Soc. Washington, vol. 48, p. 29, Feb. 6, 1935.

Type Locality.—West side of San Joaquin River, two miles northeast of Vernalis, Stanislaus County, Calif. *Range.*—Known by specimens and observation only from west side of San Joaquin River in extreme southern San Joaquin and northern Stanislaus Counties; it seems probable that this form inhabits river bottom area, at least on western side of San Joaquin River, north to delta region and likewise some distance to southward of where specimens have been obtained; zonal range, probably Lower and Upper Sonoran (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 159, May 25, 1940).

Sylvilagus bachmani macrorhinus Orr

1935. *Sylvilagus bachmani macrorhinus* Orr, Proc. Biol. Soc. Washington, vol. 48, p. 28, Feb. 6, 1935.

Type Locality.—Alpine Creek Ranch, 3½ miles south of and 2⅓ miles east of Portola, San Mateo County, Calif. Altitude, 1,700 feet. *Range.*—West-central California from San Francisco south along coast to and including Santa Cruz County; inland from southwestern Solano County south to Santa Clara County; vertical range, from sea level to nearly 4,000 feet; zonal range, Upper Sonoran and Transition (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 161, May 25, 1940).

Sylvilagus bachmani virgulti Dice*

1926. *Sylvilagus bachmani virgulti* Dice, Occ. Pap. Mus. Zool. Univ. Michigan No. 166, p. 24, Feb. 11, 1926.

Type Locality.—Soledad, Monterey County, Calif. *Range.*—South in Salinas Valley from central Monterey County to San Luis Obispo County, occurring also on adjacent ranges to west and on Gabilan and Mount Diablo Ranges to east as far south as Temploa Mountains; vertical range, as known from specimens collected, from 182 to 1,850 feet, although probably extending considerably higher in Mount Diablo Range according to statements made by residents; zonal range, mostly Upper Sonoran, but extending down to Lower Sonoran locally (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 164, May 25, 1940).

Sylvilagus bachmani cinerascens (J. A. Allen)*

1890. *Lepus cinerascens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 159, Oct. 8, 1890.

1907. *Sylvilagus bachmani cinerascens* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 84, July 22, 1907.

Type Locality.—San Fernando, Los Angeles County, Calif. *Range.*—From Ventura County, south along coast to Baja California, extending inland at northern limits to San Emigdio Range, Kern County (Orr, Occ. Pap. California Acad. Sci. No. 19, p. 166, May 25, 1940), and along coast of Baja California from northern border south to Ensenada and east to summit of Laguna Hanson Mountains; vertical range, from sea level up to 6,000 feet in northern Baja California; zonal range, through Upper Sonoran up into Transition (Nelson, North Amer. Fauna No. 29, p. 252, Aug. 31, 1909).

Sylvilagus bachmani rosaphagus Huey

1940. *Sylvilagus bachmani rosaphagus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 23, p. 221, July 31, 1940.

Type Locality.—Two miles west of Santo Domingo Mission, lat. 30°45′ N., long. 115°58′ W., Baja California, México; or, precisely, near huge red cliff that marks entrance of Santo Domingo River Canyon from coastal plain. *Range.*—San Quintín south to El Rosario on west coast of Baja California.

Sylvilagus bachmani howelli Huey*

1927. *Sylvilagus bachmani howelli* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 5, p. 67, July 6, 1927.

Type Locality.—Ten miles southeast of Alamo, lat. 31°35′ N., long. 116°03′ W., Baja California, México. *Range.*—So far as known, Sierra Juárez, and vicinity of Alamo, Baja California.

Sylvilagus bachmani exiguus Nelson†*

1907. *Sylvilagus bachmani exiguus* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 84, July 22, 1907.

Type Locality.—Yubay, central Baja California, México. *Range.*—From approximately lat. 31° N. in interior of Baja California southward to vicinity of Comondú (Nelson, North Amer. Fauna No. 29, p. 254, Aug. 31, 1909).

Sylvilagus bachmani peninsularis (J. A. Allen)*

1898. *Lepus peninsularis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 144, Apr. 12, 1898.

1909. *Sylvilagus bachmani peninsularis* Nelson, North Amer. Fauna No. 29, p. 255, Aug. 31, 1909.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Southern part of Baja California on both coasts, and interior from about Comondú and Loreto south to Cape San Lucas; vertical range, from sea level up to about 2,000 feet in region near Comondú; zonal range, Lower Sonoran and border of Arid Tropical (Nelson, loc. cit.).

Sylvilagus bachmani cerrosensis (J. A. Allen)

1898. *Lepus cerrosensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 145, Apr. 12, 1898.

1909. *Sylvilagus bachmani cerrosensis* Nelson, North Amer. Fauna No. 29, p. 255, Aug. 31, 1909.

Type Locality.—Cerros [=Cedros] Island, Baja California, México. *Range.*—Cerros Island; vertical range, from sea level up to an undetermined altitude on low mountains; zonal range, Upper Sonoran (Nelson, loc. cit.).

Sylvilagus mansuetus Nelson†*

1907. *Sylvilagus mansuetus* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 83, July 22, 1907.

Type Locality.—San José Island, Gulf of California, Baja California, México. *Range.*—San José Island; vertical range, from sea level up to an undetermined altitude on low mountains; zonal range, Lower Sonoran and upper border of Arid Tropical (Nelson, North Amer. Fauna No. 29, p. 256, Aug. 31, 1909).

Sylvilagus insonus (Nelson)†*

1904. *Lepus insonus* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 103, May 18, 1904. (See Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 335, May 26, 1950.)

1909. *Sylvilagus insonus* Lyon and Osgood, U. S. Nat. Mus. Bull. 62, p. 34, Jan. 28, 1909.

Type Locality.—Omilteme, Guerrero, México. *Range.*—Heavily forested parts of Sierra Madre del Sur, Guerrero; vertical range, from about 7,000 to 10,000 feet; zonal range, Upper Sonoran and Transition (Nelson, North Amer. Fauna No. 29, p. 264, Aug. 31, 1909).

Sylvilagus aquaticus aquaticus (Bachman)* (swamp-rabbit)

1837. *Lepus aquaticus* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, p. 319.

1884. *Lepus aquaticus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884. (Part.)

1895. *Lepus aquaticus attwateri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 327, Nov. 8, 1895. (Medina River, 18 miles south of San Antonio, Bexar County, Tex.)

1899. *Lepus telmalemonus* Elliot, Field Columb. Mus. Publ. 38, Zool. Ser., vol. 1, No. 15 (May 24), p. 285, May 25, 1899. (Washita River, near Dougherty, Murray County, Okla.)

1909. *Sylvilagus aquaticus* Nelson, North Amer. Fauna No. 29, p. 270, Aug. 31, 1909.

Type Locality.—Western Alabama. *Range.*—River bottoms and swampy woods from northwestern South Carolina (near Oakway, Oconee County; Sherman, Journ. Mamm., vol. 20, No. 2, p. 259, May 15, 1939) and northern Georgia (Fulton and Franklin Counties) west to middle Texas (Medina River near San Antonio), and north at least to southeastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 86, September 1944), southern Missouri (Leopold and Hall, Journ. Mamm., vol. 26, No. 2, p. 145, July 19, 1945), southern Illinois (Cockrum, Journ. Mamm., vol. 30, No. 4, p. 429, Nov. 17, 1949) and southwestern Indiana (Lyon, Amer. Midl. Nat., vol. 17, No. 1, p. 295, January 1936); but separated from Gulf coast by a narrow belt occupied by *littoralis.*

Sylvilagus aquaticus littoralis Nelson†*

1909. *Sylvilagus aquaticus littoralis* Nelson, North Amer. Fauna No. 29, p. 273, Aug. 31, 1909.

Type Locality.—Houma, Terrebonne Parish, La. *Range.*—A narrow belt of swamps and marshes along Gulf coast, nearly if not entirely within upper limits of tidewater, from west side of Mobile Bay, Alabama (A. H. Howell, North

Amer. Fauna No. 45, p. 73, Oct. 28, 1921), west through coastal Louisiana to Matagorda Bay, Tex.; vertical range, below 50 feet; zonal range, Lower Austral (Nelson, loc. cit.).

Subgenus TAPETI [62] Gray

1867. *Tapeti* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 224, September 1867. (Type, *Lepus brasiliensis* Linnaeus.)

Sylvilagus brasiliensis truei (J. A. Allen) *

1890. *Lepus truei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 192, Dec. 10, 1890.

1909. *Sylvilagus gabbi truei* Nelson, North Amer. Fauna No. 29, p. 262, Aug. 31, 1909.

1950. *Sylvilagus brasiliensis truei* Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 351, May 26, 1950.

Type Locality.—Mirador, Veracruz, México. *Range.*—Heavily forested mountain slopes and adjacent coastal plain of eastern México from San Luis Potosí (Rancho Apetsco, near Xilitla; Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 4, July 10, 1950), Veracruz, eastern Puebla, northeastern Oaxaca, Tabasco, Campeche, Yucatán, interior and Pacific coast of Chiapas; vertical range, from a little above sea level to about 5,000 feet in Veracruz; zonal range, Humid Tropical (Nelson, loc. cit.).

Sylvilagus brasiliensis gabbi (J. A. Allen) †*

1877. *Lepus brasiliensis* var. *gabbi* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 349, August 1877.

1884. *Lepus brasiliensis gabbi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 602, Nov. 29, 1884.

1904. *Sylvilagus gabbi* Lyon, Smithsonian Misc. Coll., vol. 45, p. 336, June 15, 1904.

1908. *Lepus gabbi tumacus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 649, Oct. 13, 1908. (Tuma, Matagalpa, Nicaragua.)

1950. *Sylvilagus brasiliensis gabbi* Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 351, May 26, 1950.

Type Locality.—Costa Rica and Chiriquí; restricted by Nelson (North Amer. Fauna No. 29, p. 259, Aug. 31, 1909), by designation of type specimen, to Talamanca [= Sipurio, Río Sixaola, Limón, near Caribbean coast], Costa Rica. *Range.*—Eastern Honduras, Nicaragua, eastern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 358, Dec. 31, 1946), and western Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 146, Apr. 26, 1920).

Sylvilagus brasiliensis dicei Harris

1932. *Sylvilagus dicei* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 248, p. 1, Aug. 4, 1932.

1950. *Sylvilagus brasiliensis dicei* Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 352, May 26, 1950.

Type Locality.—El Copey de Dota, 15 miles south of Cartago, Cordillera de Talamanca, Cartago, Costa Rica. Altitude 6,000 feet. *Range.*—Mountain regions of central Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 359, Dec. 31, 1946).

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[62] Revised by Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, pp. 349–375, May 26, 1950.

Sylvilagus brasiliensis messorius Goldman†*

1912. *Sylvilagus gabbi messorius* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 13, Sept. 20, 1912.

1950. *Sylvilagus brasiliensis messorius* Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 352, May 26, 1950.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 1,800 feet. *Range.*—Río Tuyra drainage basin, humid tropical region of eastern Panamá.

Sylvilagus brasiliensis consobrinus Anthony

1917. *Sylvilagus gabbi consobrinus* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 335, May 28, 1917.

1950. *Sylvilagus brasiliensis consobrinus* Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 353, May 26, 1950.

Type Locality.—Old Panamá (near city of Panamá), Panamá. *Range.*—Known from type locality only.

Sylvilagus brasiliensis incitatus (Bangs)

1901. *Lepus* (*Tapeti*) *incitatus* Bangs, Amer. Nat., vol. 35, p. 633, August 1901.

1909. *Sylvilagus gabbi incitatus* Nelson, North Amer. Fauna No. 29, p. 261, Aug. 31, 1909.

1950. *Sylvilagus brasiliensis incitatus* Hershkovitz, Proc, U. S. Nat. Mus., vol. 100, p. 352, May 26, 1950.

Type Locality.—Isla del Rey (San Miguel Island), Archipiélago de las Perlas, Golfo de Panamá. *Range.*—Isla del Rey; vertical range, near sea level; zonal range, Humid Tropical (Nelson, loc. cit.).

Subgenus PALUDILAGUS Hershkovitz

1950. *Paludilagus* Hershkovitz, Proc. U. S. Nat. Mus., vol. 100, p. 333, May 26, 1950. (Type, *Lepus palustris* Bachman.)

Sylvilagus palustris palustris (Bachman)* (marsh-rabbit)

1837. *Lepus palustris* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 7, p. 194.

1884. *Lepus palustris* True, Proc. U. S. Nat. Mus. vol. 7 (App., Circ. 29), p. 601, Nov. 29, 1884. (Part.)

1909. *Sylvilagus palustris* Nelson, North Amer. Fauna No. 29, p. 266, Aug. 31, 1909.

Type Locality.—Near coast of South Carolina. *Range.*—Lowlands along rivers and coast of southeastern United States from Dismal Swamp, Va., south to extreme northern Florida, and west through southern Georgia and Gulf coast of northwestern Florida to east side of Mobile Bay, Ala.; vertical range, from sea level to an undetermined altitude (probably less than 500 feet); zonal range, Lower Austral (Nelson, loc cit.).

Sylvilagus palustris paludicola (Miller and Bangs)*

1894. *Lepus paludicola* Miller and Bangs, Proc. Biol. Soc. Washington, vol. 9, p. 105, June 9, 1894.

1909. *Sylvilagus palustris paludicola* Nelson, North Amer. Fauna No. 29, p. 269, Aug. 31, 1909.

Type Locality.—Fort Island, near Crystal River, Citrus County, Fla. *Range.*—Peninsular Florida and adjacent coast islands, north along east coast at least to San Mateo, Putnam County, and on west side to Manatee Spring, Levy County, and to Gainesville, Alachua County (Blair, Journ. Mamm., vol. 17, No. 3, p. 197, Aug. 17, 1936); vertical range, from sea level up to about 100 feet; zonal range, extreme Lower Austral and upper border of Humid Tropical (Nelson, loc. cit.).

Order RODENTIA[63]

Suborder SCIUROMORPHA

Superfamily APLODONTOIDEA

Family APLODONTIIDAE

Genus APLODONTIA[64] Richardson (mountain-beavers)

1829. *Aplodontia* Richardson, Zool. Journ., vol. 4, p. 334, January 1829. (Type, *Aplodontia leporina* Richardson=*Anisonyx rufa* Rafinesque.)

Aplodontia rufa rufa (Rafinesque)*

1817. *Anisonyx ? rufa* Rafinesque, Amer. Monthly Mag., vol. 2, p. 45, November 1817.

1884. *Haplodon rufus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884.

1886. *Aplodontia rufa* Merriam, Ann. New York Acad. Sci., vol. 3, p. 316, May 1886.

1899. *Aplodontia olympica* Merriam†, Proc. Biol. Soc. Washington, vol. 13, p. 20, January 31, 1899. (Quinault Lake, Grays Harbor County, Wash. Regarded as identical with *rufa* by Dalquest and Scheffer, Murrelet, vol. 26, No. 3, pp. 36–37, Dec. 28, 1945.)

1916. *Aplodontia rufa grisea* Taylor, Univ. California Publ. Zool., vol. 12, No. 16, p. 497, May 6, 1916. (Renton, near Seattle, King County, Wash.)

Type Locality.—Neighborhood of the Columbia River, Oreg. (Specimens from Marmot, west slope of Mount Hood, Clackamas County, regarded as typical by Taylor, Univ. California Publ. Zool., vol. 17, No. 16, p. 455, May 29, 1918). *Range.*—From Chilliwack–Sumas region on western side of Cascade Mountains in southwestern British Columbia southward through western Washington, between Puget Sound and Cascade Mountains, to Columbia River; marginal localities are Bellingham, Forks of Skykomish River, north bend and mouth of Kalama River (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 69, Apr. 9, 1948).

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[63] Supergeneric groups revised by Miller and Gidley, Journ. Washington Acad. Sci., vol. 8, pp. 431–448, July 19, 1918. See also Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, pp. 76–100, Oct. 5, 1945, and Ellerman, The families and genera of living rodents, vol. 1, June 8, 1940; vol. 2, Mar. 21, 1941; vol. 3. pt. 1, March 1949.

[64] Revised by Taylor, Univ. California Publ. Zool., vol. 17, No. 16, pp. 435–504, May 29, 1918. See also Finley, Murrelet, vol. 22, No. 3 (December 1941) pp. 45–49, Jan. 20, 1942.

Aplodontia rufa rainieri Merriam†*

1899. *Aplodontia major rainieri* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 21, Jan. 31, 1899.

1904. [*Aplodontia rufa*] *rainieri* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 348.

1914. *Aplodontia chryseola* L. Kellogg, Univ. California Publ. Zool., vol. 12, No. 5, p. 295, Apr. 15, 1914. (Jackson Lake, Siskiyou County, Calif.)

1916. *Aplodontia californica columbiana* Taylor, Univ. California Publ. Zool., vol. 12, No. 16, p. 499, May 6, 1916. (Roab's Ranch, Hope, British Columbia, Canada. Regarded as identical with *rainieri* by Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 168, Jan. 24, 1947; and by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 369, Apr. 9, 1948.)

Type Locality.—Paradise Creek, south side of Mount Rainier, Pierce County, Wash. Altitude, 5,200 feet. *Range.*—Cascade Mountains in southwestern British Columbia, from Skagit on western slope near international boundary north to Hope; only two records from drier eastern slope of Cascades—east side of summit of Hope–Princeton Trail at 5,600 feet, and Stirling Creek near Hedley in middle Similkameen Valley at 1,700 feet (Anderson, loc. cit.); southward through higher Cascade Mountains of Washington (Dalquest, loc. cit.) and Oregon to Siskiyou and Trinity Mountain regions of northwestern California, and thence southwest as far as Rio Dell, Eel River, Humboldt County (regarded as *rufa* by Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 194, Sept. 26, 1933).

Aplodontia rufa pacifica Merriam†*

1899. *Aplodontia pacifica* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 19, Jan. 31, 1899.

1918. *Aplodontia rufa pacifica* Taylor, Univ. California Publ. Zool., vol. 17, No. 16, p. 467, May 29, 1918.

Type Locality.—Newport, mouth of Yaquina Bay, Lincoln County, Oreg. *Range.*—Coast region of Oregon from Columbia River (Astoria) southward to near Smith River, Del Norte County, Calif. (Finley, Murrelet, vol. 22, No. 3 (December 1941), pp. 46, 48–49, Jan. 20, 1942).

Aplodontia rufa humboldtiana Taylor*

1916. *Aplodontia humboldtiana* Taylor, Proc. Biol. Soc. Washington, vol. 29, p. 21, Feb. 24, 1916.

1918. *Aplodontia rufa humboldtiana* Taylor, Univ. California Publ. Zool., vol. 17, No. 16, p. 470, May 29, 1918.

Type Locality.—Carlotta, Humboldt County, Calif. *Range.*—Extreme northern humid coast belt, from Requa, Del Norte County, south to vicinity of Carlotta Humboldt County, and interiorly to vicinity of Weitzpek [Weitchpec], Humboldt County; vertical range, below 1,000 feet; zonal range, Canadian and Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 195, Sept. 26, 1933).

Aplodontia rufa californica (Peters)*

1864. *H*[*aplodon*] *leporinus* var. *californicus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 179.

1886. *Aplodontia major* Merriam†, Ann. New York Acad. Sci., vol. 3, p. 316, May 1886. (Sierra Nevada, Placer County, Calif.)

1904. [*Aplodontia rufa*] *californica* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 348.

Type Locality.—Assumed to be the Sierra Nevada of California (Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 344, Aug. 28, 1913); specimens from Blue Canyon, Placer County, in central Sierra Nevada may be regarded as typical (Taylor, Univ. California Publ. Zool., vol. 17, No. 16, p. 474, May 29, 1918; see also Hall, Murrelet, vol. 22, No. 3 (December 1941), p. 51, Jan. 20, 1942). *Range.*—Sierra Nevada, north to Mount Shasta and south as far as Clover Creek, Sequoia National Park, Tulare County; vertical range, from 4,600 feet (Blue Canyon, Placer County) up to 10,000 feet (in head of Lyell Canyon, Tuolumne County); zonal range, Canadian and Hudsonian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 194, Sept. 26, 1933). Recorded also eastward to Washoe and Ormsby Counties, Nev. (Hall, Mammals of Nevada, p. 575, July 1, 1946).

Aplodontia rufa nigra Taylor

1914. *Aplodontia nigra* Taylor, Univ. California Publ. Zool., vol. 12, No. 6, p. 297, Apr. 15, 1914.

1918. *Aplodontia rufa nigra* Taylor, Univ. California Publ. Zool., vol. 17, No. 16, p. 479, May 29, 1918.

Type Locality.—Point Arena, Mendocino County, Calif. *Range.*—Known only from type locality, where it is found within an area of approximately 24 square miles.

Aplodontia rufa phaea Merriam†*

1899. *Aplodontia phaea* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 20, Jan. 31, 1899.

1918. *Aplodontia rufa phaea* Taylor, Univ. California Publ. Zool., vol. 17, No. 16, p. 480, May 29, 1918.

Type Locality.—Point Reyes [probably somewhere near present town of Inverness], Marin County, Calif. *Range.*—Humid coast belt of Marin County, from 5 miles west of Inverness east to Lagunitas and south to four miles south of Olema; area inhabited, approximately 110 square miles; vertical range below 1,000 feet; zonal range, Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 195, Sept. 26, 1933).

Superfamily SCIUROIDEA

Family SCIURIDAE[65]

Subfamily SCIURINAE

Genus MARMOTA[66] Blumenbach (woodchucks)

1779. *Marmota* Blumenbach, Handbuch der Naturgeschichte, vol. 1, p. 79. (Type, *Marmota alpina* Blumenbach = *Mus marmota* Linnaeus.)

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[65] For present classification see A. H. Howell, North Amer. Fauna No. 56 (April), pp. 1, 36–52, May 18, 1938. For other classifications, see Ellerman, The families and genera of living rodents, vol. 1, pp. 259–464, June 8, 1940; Bryant, Amer. Midl. Nat., vol. 33, No. 2, pp. 257–390, March 1945; Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, pp. 78–80, Oct. 5, 1945.

[66] Revised by A. H. Howell, North Amer. Fauna No. 37, pp. 1–80, Apr. 7, 1915. See also A. H. Howell, North Amer. Fauna No. 56 (April), pp. 37–38, May 18, 1938.

Subgenus MARMOTOPS [67] Pocock

1923. *Marmotops* Pocock, Proc. Zool. Soc. London, 1922, pt. 4, p. 1200, Feb. 13, 1923. (Type, *Mus monax* Linnaeus.)

monax—group

Marmota monax monax (Linnaeus) *

1758. [*Mus*] *monax* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 60.

1884. *Arctomys monax* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1904. [*Marmota*] *monax* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 344.

Type Locality.—Maryland. *Range.*—Middle eastern United States from Pennsylvania, New Jersey (?), Ohio, Indiana, Illinois, Lower Peninsula of Michigan, and eastern Iowa, south to northern parts of South Carolina, Georgia, Alabama, and Arkansas.

Marmota monax rufescens A. H. Howell†*

1914. *Marmota monax rufescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 13, Feb. 2, 1914.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—Eastern North Dakota, central and southern Minnesota, Wisconsin, and Upper Peninsula of Michigan, southern Ontario (north to Ottawa River, intergrading to some extent with *canadensis* on Quebec side of river near Ottawa (see Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 106, Jan. 24, 1947), greater part of New York (including Long Island), higher parts of western Massachusetts, and all of Vermont (Osgood, Journ. Mamm., vol. 19, No. 4, p. 438, Nov. 14, 1938).

Marmota monax bunkeri Black

1935. *Marmota monax bunkeri* Black, Journ. Mamm., vol. 16, No. 4, p. 319, Nov. 15, 1935.

Type Locality.—Seven miles southwest of Lawrence, Douglas County, Kan. *Range.*—Northeastern Kansas, south to Woodson and Greenwood Counties, and west along Kansas River and tributaries (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 72, September 1944), northwestern Missouri, western Iowa and southeastern Nebraska (Swenk, Journ. Mamm., vol. 19, No. 3, pp. 348–353, Aug. 18, 1938).

Marmota monax preblorum A. H. Howell†*

1914. *Marmota monax preblorum* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 14, Feb. 2, 1914.

Type Locality.—Wilmington, Middlesex County, Mass. *Range.*—Southern New England, from Connecticut to New Hampshire and southern Maine.

Marmota monax ignava (Bangs) *

1899. *Arctomys ignavus* Bangs, Proc. New England Zool. Club., vol. 1, p. 13, Feb. 28, 1899.

1904. [*Marmota monax*] *ignavus* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 344.

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[67] For status see, A. H. Howell, North Amer. Fauna No. 56 (April), p. 38, May 18, 1938; and Ellerman, The families and genera of living rodents, vol. 1, p. 455, June 8, 1940.

Type Locality.—Black Bay, Strait of Belle Isle, Labrador, Canada. *Range.*—Known definitely only from Black Bay region and L'Anse Eclair on north side of Strait of Belle Isle; reported to occur near Northwest River post on Hamilton Inlet (Strong, Journ. Mamm., vol. 11, No. 1, p. 8, Feb. 11, 1950) and Fort George, Ungava Bay (Spencer, Geol. Nat. Hist. Surv. Canada Ann. Rep., vol. 3, pt. 2, p. 78J, 1888). Reported also at Cross River near Harrington Harbor, Labrador (Weaver, Journ. Mamm., vol. 21, No. 4, p. 421, Nov. 14, 1940).

Marmota monax canadensis (Erxleben)*

1777. [*Glis*] *canadensis* Erxleben, Systema regni animalis . . . , p. 363. (Based primarily on the Quebec marmot of Pennant.)

1778. *Mus empetra* Pallas, Novae species quadrupedum e glirum ordine, . . . , p. 75. (Based primarily on the Quebec marmot of Pennant.)

1898. *Arctomys monax canadensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 456, Nov. 10, 1898.

1904. [*Marmota monax*] *canadensis* Trouessart, Catalogus Mammalium . . . , suppl., fasc. 2, p. 344.

Type Locality.—"Canada et ad fretum Hudsonis." Fixed by A. H. Howell (North Amer. Fauna No. 37, Apr. 7, 1915) as Quebec, Quebec, Canada. *Range.*—Greater part of interior of Canada, from Simpson, Liard, and Great Slave Lake in Mackenzie District, Cumberland House, Saskatchewan, and York Factory, Manitoba, south through central Alberta and Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 105, Jan. 24, 1947) to northern Minnesota, northern Wisconsin, northern Michigan, central Ontario, southern Quebec, New Brunswick, Nova Scotia, and northern Vermont (Mount Mansfield).

Marmota monax johnsoni Anderson

1943. *Marmota monax johnsoni* Anderson, Ann. Rept. Provancher Soc. Nat. Hist. Canada, Quebec, 1942, p. 53, Sept. 7, 1943.

Type Locality.—Percé, Gaspé County, Quebec, Canada. *Range.*—Gaspé Peninsula from Percé at sea level up to about 1,500 feet in upper branches of Grand Cascapedia River.

Marmota monax petrensis A. H. Howell†*

1915. *Marmota monax petrensis* A. H. Howell, North Amer. Fauna No. 37, p. 33, Apr. 7, 1915.

Type Locality.—Revelstoke, British Columbia, Canada. *Range.*—Interior ranges of southern British Columbia and adjacent parts of United States, from Barkerville, British Columbia, south to Thompson Pass, Idaho.

Marmota monax ochracea Swarth*

1911. *Marmota ochracea* Swarth, Univ. California Publ. Zool., vol. 7, No. 6, p. 203, Feb. 18, 1911.

1915. *Marmota monax ochracea* A. H. Howell, North Amer. Fauna No. 37, p. 34, Apr. 7, 1915.

Type Locality.—Forty-mile Creek, Alaska. *Range.*—West of continental divide in northern British Columbia (Liard River) and southern Yukon (Babine Mountains, Takla Lake, Atkin, and Teslin Lake) north to Forty-mile Creek in eastern Alaska (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 106, Jan. 24, 1947).

flaviventris—group

Marmota flaviventris flaviventris (Audubon and Bachman) *

1841. *Arctomys flaviventer* Audubon and Bachman, Proc. Acad. Nat. Sci. Philadelphia, vol. 1, p. 99.

1884. *Arctomys flaviventer* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 593, Nov. 29, 1884.

1904. [*Marmota*] *flaviventer* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 344.

Type Locality.—"Mountains between Texas and California." Fixed (A. H. Howell, North Amer. Fauna No. 37, pp. 39, 40, Apr. 7, 1915) as Mount Hood, Oreg. *Range.*—Cascade Range in Oregon and northern Sierra Nevada in California from eastern Siskiyou and Modoc Counties south to vicinity of Lake Tahoe (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 119, Sept. 26, 1933).

Marmota flaviventris avara (Bangs) *

1899. *Arctomys flaviventer avarus* Bangs, Proc. New England Zool. Club, vol. 1, p. 68, July 31, 1899.

1904. [*Marmota flaviventer*] *avarus* Trouessart, Catalogus Mammalium . . . , suppl., fasc. 2, p. 344.

Type Locality.—Okanagan, British Columbia, Canada. *Range.*—Interior valleys and foothills of southern British Columbia south of Williams Lake in Fraser River Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 107, Jan. 24, 1947), eastern Washington, but west of Cascades in vicinity of Bellingham Bay (Edson, Journ. Mamm., vol. 16, No. 1, p. 68, Feb. 14, 1935), eastern Oregon, south of Kootenai County in western Idaho (Davis, The Recent mammals of Idaho, p. 159, Apr. 5, 1939) to lat. 38°30′ N. in Nevada, except in Sierra Nevada the central part of the state, and northeastern corner (Hall, Mammals of Nevada, p. 286, July 1, 1946).

Marmota flaviventris sierrae A. H. Howell† *

1915. *Marmota flaviventris sierrae* A. H. Howell, North Amer. Fauna No. 37, p. 43, Apr. 7, 1915.

Type Locality.—Head of Kern River, Mount Whitney, Tulare County, Calif. Altitude, 9,300 feet. *Range.*—Southern Sierra Nevada, north to include Yosemite section; recorded south as far as Cannell Meadow, Tulare County, and at north intergrades with *flaviventris* in region of Tuolumne and Alpine Counties (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 120, Sept. 26, 1933).

Marmota flaviventris fortirostris Grinnell*

1921. *Marmota flaviventris fortirostris* Grinnell, Univ. California Publ. Zool., vol. 21, No. 6, p. 242, Nov. 7, 1921.

Type Locality—McAfee Meadow. White Mountains, Mono County, Calif. Altitude, 11,800 feet. *Range.*—Higher parts of White Mountains, in Mono and Inyo Counties, Calif.; recorded from near White Mountain Peak south to near Blanco Mountain (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 120, Sept. 26, 1933).

Marmota flaviventris parvula A. H. Howell† *

1914. *Marmota flaviventer parvula* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 14, Feb. 2, 1914.

Type Locality.—Jefferson, Nye County, Nev. (in Toquima Range, about 10 miles north of Belmont). *Range.*—Toyabe, Toquima, and Hot Creek Ranges of central Nevada (Hall, Mammals of Nevada, p. 289, July 1, 1946).

Marmota flaviventris engelhardti J. A. Allen*

1905. *Marmota engelhardti* J. A. Allen, Mus. Brooklyn Inst. Sci. Bull., vol. 1, p. 120, Mar. 31, 1905.

1915. *Marmota flaviventris engelhardti* A. H. Howell, North Amer. Fauna No. 37, p. 45, Apr. 7, 1915.

Type Locality.—Brigg's [not Britt's] Meadows, 5 miles west of Puffer Lake, Beaver County, Utah (see Hardy, Journ. Mamm., vol. 26, No. 4 (November 1945), p. 432, Feb. 12, 1946). Altitude, 10,000 feet. *Range.*—Kane, Washington, Iron, Beaver, Sevier, and Wayne Counties (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 21, Feb. 15, 1951) in southern Utah.

Marmota flaviventris nosophora A. H. Howell†*

1914. *Marmota flaviventer nosophora* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 15, Feb. 2, 1914.

Type Locality.—Willow Creek, 7 miles east of Corvallis, Ravalli County, Mont. Altitude, 4,000 feet. *Range.*—Rocky Mountain region from Flathead Lake, Mont., south through Idaho (west in Snake River Valley as far as Hagerman; Davis, The Recent mammals of Idaho, p. 159, Apr. 5, 1939) to northeastern Nevada (Hall, Mammals of Nevada, p. 287, July 1, 1946) and Wasatch and Uinta Mountains of northeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 19, Feb. 15, 1951); east to Bighorn Mountains, Wyo.

Marmota flaviventris dacota (Merriam)†*

1889. *Arctomys dacota* Merriam, North Amer. Fauna No. 2, p. 8, Oct. 30, 1889.

1914. *M[armota] f[laviventer] dacota* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 15, Feb. 2, 1914.

Type Locality.—Custer, Custer County, Black Hills, S. Dak. *Range.*—Black Hills, S. Dak., and Bear Lodge Mountains, Wyo.

Marmota flaviventris luteola A. H. Howell†*

1914. *Marmota flaviventer luteola* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 15, Feb. 2, 1914.

1914. *Marmota flaviventer warreni* A. H. Howell†, Proc. Biol. Soc. Washington, vol. 27, p. 16, Feb. 2, 1914. ("Smith Trail," 2 miles west of Crested Butte, Gunnison County, Colo.; altitude, about 10,000 feet. Regarded by Warren, Journ. Mamm., vol. 17, No. 4, p. 392, Nov. 16, 1936, as identical with *luteola*.)

1915. *Marmota flaviventer campioni* Figgins, Proc. Biol. Soc. Washington, vol. 28, p. 147, Sept. 21, 1915. (Detached range between the "North Fork" and the North Platte River, 8 miles northwest of Higho Post Office, Jackson County, Colo. Regarded by Warren, Journ. Mamm., vol. 17, No. 4, p. 392, Nov. 16, 1936, as identical with *luteola*.)

Type Locality.—Woods Post Office, Medicine Bow Mountains, Albany County, Wyo. Altitude, 7,500 feet. *Range.*—Laramie Mountains of southeastern Wyoming south through mountains of Colorado to La Plata, Archuleta and Conejos

Counties, and presumably northwestern New Mexico; southeastern Utah in Grand and San Juan Counties (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 21, Feb. 15, 1951).

Marmota flaviventris notioros Warren

1934. *Marmota flaviventris notioros* Warren, Journ. Mamm., vol. 15, No. 1, p. 62, Feb. 15, 1934.

Type Locality.—Near Marion Reservoir or Lake, Wet Mountains, Custer County, Colo. Altitude, 10,600 feet. *Range.*—Wet Mountains and Greenhorn Range, in Custer, Pueblo, and Huerfano Counties, Colo.

Marmota flaviventris obscura A. H. Howell†*

1914. *Marmota flaviventer obscura* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 16, Feb. 2, 1914.

Type Locality.—Wheeler Peak, 5 miles south of Twining, Taos County, N. Mex. Altitude, 11,500 feet. *Range.*—Upper slopes of high peaks in northern New Mexico from Pecos Baldy, Sangre de Cristo Range, north to Costilla and Saguache Counties in southwestern Colorado (Warren, Journ. Mamm., vol. 17, No. 4, p. 397, Nov. 16, 1936); occurs in Hudsonian and upper Canadian Zones from about 9,600 feet altitude to summits of the peaks (13,300 to 13,700 feet).

caligata—group [68]

Marmota caligata caligata (Eschscholtz)*

1829. *Arctomys caligatus* Eschscholtz, Zoologischer Atlas, . . . , pt. 2, pl. 1, pl. 6.

1884. *Arctomy pruinosus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884. (Not of Gmelin, 1788.)

1888. *Arctomys caligatus* Tyrrell, Proc. Canadian Inst., Toronto, ser. 3, vol. 6, p. 88, October 1888.

1903. *Marmotta* [sic] *caligata* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 539, Oct. 10, 1903. (*Marmota marmota camtschatica* (see Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), pp. 513–514, Nov. 19, 1951) and *Marmota caligata* subsp. are regarded as related by Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 5 (Rodentia, cont.), pp. 302, 327–328, 1947.)

Type Locality.—Near Bristol Bay, Alaska. *Range.*—Alaska and Yukon, from Portland Canal north on coast to Bristol Bay, and in interior to Endicott Range and mountains lying westward of Fort Good Hope, Mackenzie.

Marmota caligata broweri Hall and Gilmore*

1934. *Marmota caligata broweri* Hall and Gilmore, Canadian Field-Nat., vol. 48, p. 57, Apr. 2, 1934.

Type Locality.—Point Lay, Arctic coast of Alaska. *Range.*—Northwestern Arctic coast of Alaska. Known definitely from type locality, vicinity of Cape Thompson, and Tolugak Lake near head of Anaktuvuk River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950).

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[68] Reviewed by Anderson, Canadian Field-Nat., vol. 48, No. 4, pp. 61–63 (map, p. 60), Apr. 2, 1934.

Marmota caligata sheldoni A. H. Howell†*

1914. *Marmota caligata sheldoni* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 18, Feb. 2, 1914.

Type Locality.—Montague Island, Alaska. *Range.*—Known from type locality only.

Marmota caligata oxytona Hollister†*

1912. *Marmota sibila* Hollister, Smithsonian Misc. Coll., vol. 56, No. 35, p. 1, Feb. 7, 1912. (Not *Arctomys sibila* Wolf, 1808.)

1914. *Marmota oxytona* Hollister, Science, new ser., vol. 39, p. 251, Feb. 13, 1914. (Substitute for *sibila* Hollister.)

1915. *Marmota caligata oxytona* A. H. Howell, North Amer. Fauna No. 37, p. 63, Apr. 7, 1915.

Type Locality.—Head of Moose Pass Branch of the Smoky River, Alberta, Canada. Altitude, 7,200 feet. *Range.*—Interior of northern British Columbia, southwestern Mackenzie and southeastern Yukon, from Teslin Lake and Liard River south to Barkerville, British Columbia, and Mount Robson region, British Columbia and Alberta.

Marmota caligata okanagana (King)*

1836. *Arctomys okanaganus* King, Narrative of a journey to the shores of the Arctic Ocean . . . , vol. 2, p. 236.

1914. (*Marmota*) *okanagana* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 17, Feb. 2, 1914.

1915. *Marmota caligata okanagana* A. H. Howell, North Amer. Fauna No. 37, p. 64, Apr. 7, 1915.

Type Locality.—The region occupied by Okanagan Indians on borders of Rocky Mountains between Columbia and Fraser Rivers. Fixed (A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 17, Feb. 2, 1914) as Gold Range (Shuswap Range; see Anderson, Canadian Field-Nat., vol. 48, p. 62, Apr. 2, 1934), British Columbia, Canada. *Range.*—Gold and Selkirk Ranges, British Columbia, and probably main range of Rocky Mountains in Alberta from Banff to Henry House; mountains of southern interior of British Columbia from McGillivray Creek near Lillooet, east through Shuswap and Monashee Ranges and Selkirk Mountains; south to extreme northeastern Washington in Columbia Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 108, Jan. 24, 1947).

Marmota caligata nivaria A. H. Howell†*

1914. *Marmota caligata nivaria* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 17, Feb. 2, 1914.

Type Locality.—Mountains near Upper St. Mary's Lake, Glacier County, Mont. Altitude, 6,100 feet. *Range.*—Upper slopes (at and above timberline) of Bitterroot and Salmon River Mountains, northern Idaho, and of high mountains of northwestern Montana; north to Waterton Lakes National Park, Alberta, Canada (see distribution map, Anderson and Hall, Canadian Field-Nat., vol. 48, p. 60, Apr. 2, 1934). Recorded as far north as Farrow Pass northwest of Mount Assiniboine, British Columbia (Crowe, Bull. Amer. Mus. Nat. Hist., vol. 80, p. 397, Feb. 4, 1943).

Marmota caligata cascadensis A. H. Howell†*

1914. *Marmota caligata cascadensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 27, p. 17, Feb. 2, 1914.

Type Locality.—Mount Rainier, Pierce County, Wash. *Range.*—Cascade Range (at and above timberline) from Mount Rainier, Wash., north to southern British Columbia (Mount Baker Range and Howe Sound, a little north of Vancouver); intergrading with *okanagana* on east side of Cascade Mountains on south bank of Thompson River near Spences Bridge, British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 107, Jan. 24, 1947).

Marmota caligata raceyi Anderson*

1932. *Marmota caligata raceyi* Anderson, Nat. Mus. Canada, Bull. 70, p. 112, Nov. 24, 1932.

Type Locality.—Itcha Mountains, Chilcotin Plateau, south of Isacha Lake, range III, coast district, British Columbia; lat. 52° 45′ N., long. 125° W. Altitude, 6,500 feet. *Range.*—From Chilcotin Plateau between middle Fraser River and Coast Mountains, west to upper Bella Coola Valley, British Columbia (see distribution map, Anderson and Hall, Canadian Field-Nat., vol. 48, p. 60, Apr. 2, 1934).

Marmota caligata vigilis Heller*

1909. *Marmota vigilis* Heller, Univ. California Publ. Zool., vol. 5, No. 2, p. 248, Feb. 18, 1909.

1915. *Marmota caligata vigilis* A. H. Howell, North Amer. Fauna No. 37, p. 61, Apr. 7, 1915.

Type Locality.—West shore of Glacier Bay, Alaska. *Range.*—Known from type locality only.

Marmota olympus (Merriam)†*

1898. *Arctomys olympus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 352, Oct. 4, 1898.

1904. [*Marmota*] *olympus* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 344.

Type Locality.—Timberline at head of Soleduc River, Olympic Mountains, Clallam County, Wash. *Range.*—Upper slopes of Olympic Mountains, Wash., above timberline (from about 4,000 feet altitude to near summits of peaks).

Marmota vancouverensis Swarth*

1911. *Marmota vancouverensis* Swarth, Univ. California Publ. Zool., vol. 7, No. 6, p. 201, Feb. 18, 1911.

Type Locality.—Mount Douglas, Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island; apparently not generally distributed, and known at present only from "the mountains at the head of China Creek, some 20 miles south of Alberni, in the Golden Eagle Basin, and King Solomon Basin, and on the surrounding slopes and ridges."

Genus CYNOMYS[69] Rafinesque (prairie-dogs)

1817. *Cynomys* Rafinesque, Amer. Monthly Mag. vol. 2, No. 1, p. 45, November 1817. (Type, *Cynomys socialis* Rafinesque=*Arctomys ludoviciana* Ord.)

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[69] Revised by Hollister, North Amer. Fauna No. 40, June 20, 1916.

Subgenus **CYNOMYS** Rafinesque

Cynomys ludovicianus ludovicianus (Ord)*

1815. *Arctomys ludoviciana* Ord, *in* [Guthrie], A new geographical, historical, and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, p. 292. (Description on p. 302.)

1858. *Cynomys ludovicianus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1957), p. xxxix, July 14, 1858.

1884. *Cynomys ludovicianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1905. *Cynomys pyrrotrichus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 139, Apr. 18, 1905. (White Horse Spring, Woods County, Okla.)

Type Locality.—Upper Missouri River ("vicinity of the Missouri, and throughout the greater part of Louisiana"). *Range.*—Great Plains region, south from Frenchman River, southern Saskatchewan, Canada (Soper, Journ. Mamm., vol. 25, No. 1, p. 47, Feb. 18, 1944), to west-central Texas (Mason County to eastern Pecos Valley); east to about long. 97° W. in Nebraska, Kansas, and Oklahoma; west to Rocky Mountains in central Montana, Wyoming, and Colorado, and in extreme eastern New Mexico. Zonal range, chiefly Upper Sonoran, but also ranging into Transition and Lower Sonoran. Introduced colonies exist, or have been reported as formerly existing, in Sac County and at Burlington, Iowa; near Monroe, La.; at Seneca, S. C.; and on Nantucket Island, Mass.

Cynomys ludovicianus arizonensis Mearns*

1890. *Cynomys arizonensis* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 305, Feb. 21, 1890.

1892. *C[ynomys] ludovicianus arizonensis* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 158, July 27, 1892.

Type Locality.—Point of Mountain, near Willcox, Cochise County, Ariz. *Range.*—Southeastern Arizona, southern and central New Mexico, southwestern Texas, and adjacent portions of Sonora and Chihuahua, México. North to San Pedro and Santa Rosa, N. Mex.; east to Pecos Valley; west to Huachuca, Ariz.; south to San Diego and Casas Grandes, Chihuahua, and to Presidio County, Tex.

Cynomys mexicanus Merriam†*

1892. *Cynomys mexicanus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 157, July 27, 1892.

Type Locality.—La Ventura, Coahuila, México. *Range.*—Southeastern Coahuila and northern San Luis Potosí, México; north to Saltillo; south to Vanegas.

Subgenus **LEUCOCROSSUROMYS** Hollister

1916. *Leucocrossuromys* Hollister, North Amer. Fauna No. 40, p. 23, June 20, 1916. (Type, *Spermophilus gunnisoni* Baird.)

Cynomys leucurus Merriam†*

1890. *Cynomys leucurus* Merriam, North Amer. Fauna No. 3, p. 59, Sept. 11, 1890.

1898. *Cynomys lewisii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 455, Nov. 10, 1898. (Not *Arctomys lewisii* Audubon and Bachman, a *Marmota* from the "shores of the Columbia River"; see Hollister, North Amer. Fauna No. 40, p. 26, June 20, 1916.)

Type Locality.—Fort Bridger, Uinta County, Wyo. *Range.*—Irregular areas in mountainous parts of Montana, Wyoming, Utah, and Colorado. South from Bighorn Basin, in southern Montana, across central and southwestern Wyoming into western Colorado and northeastern Utah; east to Laramie Mountains, Wyo., and into North Park, Colo.; south into lower Gunnison Valley; west into Uinta Basin, Tavaputs Plateau, Carbon and Emery Counties, and in Grand County between Green and Colorado Rivers, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 21, Feb. 15, 1951).

Cynomys parvidens J. A. Allen*

1905. *Cynomys parvidens* J. A. Allen, Mus. Brooklyn Inst. Sci. Bull., vol. 1, p. 119, Mar. 31, 1905.

Type Locality.—Buckskin Valley, Iron County, Utah. *Range.*—Eastern Millard, Beaver, and Iron Counties, eastward to western Garfield, Wayne, Sevier, and Sanpete Counties, southward to northern Kane County, and northward to southeastern Juab County, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 23, Feb. 15, 1951).

Cynomys gunnisoni gunnisoni (Baird)†*

1855. *Spermophilus gunnisoni* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 334, April 1855.

1858. *Cynomys gunnisonii* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. xxv, July 14, 1858.

1890. *Cynomys gunnisoni* Merriam, North Amer. Fauna No. 3, p. 58, Sept. 11, 1890. (See also Merriam, North Amer. Fauna No. 5, p. 40, July 30, 1891.)

Type Locality.—Cochetopa Pass, Saguache County, Colo. *Range.*—Rocky Mountain region of central and central-southern Colorado and northern New Mexico. North into South Park, Colo.; east to El Paso, Fremont, and Huerfano Counties, Colo.; south into Sangre de Cristo and Jemez Mountains, N. Mex.; west to western Gunnison and Hinsdale Counties, Colo., and to western Rio Arriba County, N. Mex. Zonal range, chiefly Transition, but also in Upper Sonoran and lower parts of Canadian.

Cynomys gunnisoni zuniensis Hollister†*

1916. *Cynomys gunnisoni zuniensis* Hollister, North Amer. Fauna No. 40, p. 32, June 20, 1916.

Type Locality.—Wingate, McKinley County, N. Mex. *Range.*—Southwestern Colorado, southeastern Utah, northwestern and west-central New Mexico, and north-central Arizona. North in western Colorado to Montrose County; west in eastern Utah to Colorado River (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 25, Feb. 15, 1951); northeast in New Mexico in Río Grande Valley to Espanola and east to Pecos and Manzano Mountains; south on west side of Rio Grande Valley to Sierra and Socorro Counties, New Mexico; west in central Arizona to Prescott and Hualpai Indian Reservation. Zonal range, chiefly Upper Sonoran, but also in Transition.

Genus CITELLUS[70] Oken (ground-squirrels)

1816. *Citellus* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sect. 2, p. 842. (Type, *Mus citellus* Linnaeus.)

1817. *Anisonyx* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 45, November 1817. (Not of Latreille, 1807. Type, *Anisonyx brachiura* Rafinesque = *Arctomys columbianus* Ord.)

1825. *Spermophilus* F. Cuvier, Des dents des mammifères, . . . , p. 255, Table méthod. (Type, *Mus citellus* Linnaeus.)

Subgenus CITELLUS Oken

townsendii—group

Citellus townsendii townsendii (Bachman) *

1839. *Spermophilus townsendii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, p. 61. (See Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, p. 226, 1853; and T. H. Scheffer, Journ. Mamm., vol. 27, No. 4, p. 395, Nov. 25, 1946.)

1891. *Spermophilus townsendi* Merriam, North Amer. Fauna No. 5, p. 36, July 30, 1891.

1898. *Spermophilus mollis yakimensis* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 70, Mar. 24, 1898. (Mabton, Yakima County, Wash.)

1904. [*Citellus*] *townsendi* Trouessart, Catalogus Mammalium . . . , suppl., fasc. 2, p. 338.

Type Locality.—"On the Columbia River, about 300 miles above its mouth"; therefore, near the site of the present town of Wallula, Walla Walla County, Wash. *Range.*—South-central Washington, between Columbia River and Cascade Range, north to Ellensburg, Kittitas County. Zonal range, Upper Sonoran.

Citellus townsendii mollis (Kennicott) †*

1863. *Spermophilus mollis* Kennicott, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, p. 157.

1884. *Spermophilus mollis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1898. *Spermophilus mollis stephensi* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 69, Mar. 24, 1898. (Queen Station, near head of Owens Valley, Mineral County, Nev.)

1904. [*Citellus*] *mollis* Trouessart, Catalogus Mammalium . . . , suppl., fasc. 2, p. 339.

1913. *Citellus leurodon* Merriam†, Proc. Biol. Soc. Washington, vol. 26, p. 136, May 21, 1913. (Murphy, in hills west of Snake River, Owyhee County, Idaho.)

1913. *Citellus mollis washoensis* Merriam†, Proc. Biol. Soc. Washington, vol. 26, p. 138, May 21, 1913. (Carson Valley, Douglas County, Nev.)

1938. *Citellus townsendii mollis* A. H. Howell, North Amer. Fauna, No. 56 (April), p. 63, May 18, 1938.

Type Locality.—Camp Floyd, near Fairfield, Utah County, Utah. *Range.*—Western Utah, Idaho south and east of Snake River from near Murphy east at least to Blackfoot (Davis, Journ. Mamm., vol. 20, No. 2, p. 187, May 15, 1939), Nevada (except northwestern corner; Hall, Mammals of Nevada, p. 301, July 1, 1946), and southeastern Oregon; north to Rome, Oreg.; east to Salt Lake City and Manti, Utah; south to Cedar City, Utah; west to Honey Lake and Owens Valley, Calif. Zonal range, Upper Sonoran.

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[70] Names published by Oken in 1816 regarded as non-Linnaean and not available by Hershkovitz, Journ. Mamm., vol. 30, No. 3, p. 295, Aug. 17, 1949.

Revised by A. H. Howell, North Amer. Fauna No. 56 (April), pp. 53–216, May 18, 1938.

Citellus townsendii artemesiae Merriam†*

1913. *Citellus mollis artemesiae* Merriam, Proc. Biol. Soc. Washington, vol. 26, p. 137, May 21, 1913.

1913. *Citellus mollus* [sic] *pessimus* Merriam†, Proc. Biol. Soc. Washington, vol. 26, p. 138, May 21, 1913. (Lower part of Big Lost River, Butte County, Idaho.)

1938. *Citellus townsendii artemesiae* A. H. Howell, North Amer. Fauna. No. 56 (April), p. 65, May 18, 1938.

Type Locality.—Birch Creek, about 10 miles south of Nicholia, Lemhi County, Idaho. *Range.*—North and west of Snake River from near Bliss, Gooding County, north and east to Birch Creek, Idaho (Davis, Journ. Mamm., vol. 20, No. 2, p. 188, May 15, 1939). Zonal range, Upper Sonoran.

Citellus townsendii vigilis Merriam†*

1913. *Citellus canus vigilis* Merriam, Proc. Biol. Soc. Washington, vol. 26, p. 137, May 21, 1913.

1938. *Citellus townsendii vigilis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 66, May 18, 1938.

Type Locality.—Vale, Malheur County, Oreg. *Range.*—Lower part of Malheur Valley, Oreg., in vicinity of Vale and Ontario, and north in Snake River Valley to Huntington, Baker County; Owyhee County, Idaho, along south side of Snake River from Oregon east to Reynolds Creek (Davis, Journ. Mamm., vol. 20, No. 2, p. 186, May 15, 1939). Zonal range, Upper Sonoran.

Citellus townsendii canus (Merriam)†*

1898. *Spermophilus mollis canus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 70, Mar. 24, 1898.

1904. [*Citellus mollis*] *canus* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 339.

1938. *Citellus townsendii canus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 67, May 18, 1938.

Type Locality.—Antelope, Wasco County, Oreg. *Range.*—Eastern Oregon and extreme northwestern Nevada; west to Warmspring, Bend, and Summer Lake; south to Summit Lake, Nev.; east to Catlow Valley and Cedar Mountains, Oreg. Zonal range, Upper Sonoran.

Citellus townsendii idahoensis Merriam†*

1913. *Citellus idahoensis* Merriam, Proc. Biol. Soc. Washington, vol. 26, p. 135, May 21, 1913.

1939. *Citellus townsendii idahoensis* Davis, Journ. Mamm., vol. 20, No. 2, p. 182, May 15, 1939.

Type Locality.—Payette at junction of Payette and Snake Rivers, Payette County, Idaho. *Range.*—North side of Snake River in Idaho from Payette east at least to Mountain Home. Zonal range, Upper Sonoran.

washingtoni—group

Citellus washingtoni washingtoni A. H. Howell†*

1938. *Citellus washingtoni washingtoni* A. H. Howell, North Amer. Fauna No. 56 (April), p. 69, May 18, 1938. (See T. H. Scheffer, Journ. Mamm., vol. 27, No. 4, p. 395, Nov. 25, 1946.)

Type Locality.—Touchet, Walla Walla County, Wash. *Range.*—Southeastern Washington and northern Oregon; north to southern Adams County, Wash., east at least to Idaho–Washington boundary; south to Heppner, Oreg.; west to Willows, Oreg. Zonal range, Upper Sonoran.

Citellus washingtoni loringi A. H. Howell†*

1938. *Citellus washingtoni loringi* A. H. Howell, North Amer. Fauna No. 56 (April), p. 71, May 18, 1938. (Regarded as identical with *washingtoni* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 271, Apr. 9, 1948.)

Type Locality.—Douglas, Douglas County, Wash. *Range.*—Plains of east-central Washington, south and east of Columbia River, including most of Douglas, Grant, Lincoln, and Adams Counties; east to Spokane County. Zonal range, Upper Sonoran.

Citellus brunneus A. H. Howell†*

1928. *Citellus townsendii brunneus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 41, p. 211, Dec. 18, 1928.

1938. *Citellus brunneus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 72, May 18, 1938.

Type Locality.—New Meadows, Adams County, Idaho. *Range.*—West-central Idaho; in Washington, Adams and Valley Counties; limits of range unknown. Zonal range, Transition and Upper Sonoran.

richardsonii—group

Citellus richardsonii richardsonii (Sabine)*

1822. *Arctomys richardsonii* Sabine, Trans. Linn. Soc. London, vol. 13, p. 589.

1884. *Spermophilus richardsoni richardsoni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. [*Citellus*] *richardsoni* Trouessart, Catalogus Mammalium . . . , Suppl. fasc. 2, p. 338.

1938. *Citellus richardsonii richardsonii* A. H. Howell, North Amer. Fauna No. 56 (April), p. 73, May 18, 1938.

Type Locality.—Carlton House, Saskatchewan, Canada. *Range.*—Plains of southern Alberta, southern Saskatchewan, southwestern Manitoba, northern and central Montana, North Dakota (except southwestern part), and northeastern South Dakota; north to North Saskatchewan River; east to Red River Valley, N. Dak., Big Stone Lake, S. Dak., and western edge of Minnesota; south to east-central South Dakota (Jerauld County) and southwestern Montana (Gallatin and Park Counties); west to foothills of Rocky Mountains in Alberta and Montana. Zonal range, Transition.

Citellus richardsonii elegans (Kennicott)†*

1863. *Spermophilus elegans* Kennicott, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, p. 158.

1884. *Spermophilus richardsoni townsendi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884. (Not *S. townsendii* Bachman, 1839.)

1891. *Spermophilus elegans* Merriam, North Amer. Fauna No. 5, p. 39, July 30, 1891.

1904. [*Citellus*] *elegans* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 339.

1938. *Citellus richardsonii elegans* A. H. Howell, North Amer. Fauna No. 56 (April), p. 76, May 18, 1938.

Type Locality.—Fort Bridger, Uinta County, Wyo. *Range.*—Southeastern Idaho, southern Wyoming, and northwestern Colorado; north to northwestern Converse County, Wyo.; east to extreme southeastern Wyoming; and south to Leadville, Colo. Zonal range, mainly Transition.

Citellus richardsonii aureus Davis*

1939. *Citellus elegans aureus* Davis, The Recent mammals of Idaho, p. 177, Apr. 5, 1939.

Type Locality.—Double Springs, 16 miles northeast of Dickey, Custer County, Idaho. *Range.*—The Lost River country, including Big Lost River, Pahsimeroi, Lemhi, and Birch Creek Valleys, and east probably to Henry Lake, northeastern Idaho; occurs also in southwestern Montana (Madison and Beaverhead Counties).

Citellus richardsonii nevadensis A. H. Howell†*

1928. *Citellus elegans nevadensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 41, p. 211, Dec. 18, 1928.

1938. *Citellus richardsonii nevadensis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 77, May 18, 1938.

Type Locality.—Paradise, Humbolt County, Nev. *Range.*—Northeastern Nevada west to Winnemucca and south to Diamond Valley (Hall, Mammals of Nevada, p. 303, July 1, 1946), extreme southeastern Oregon; and Riddle, Owyhee County, southwestern Idaho (Davis, The Recent mammals of Idaho, p. 177, Apr. 5, 1939). Zonal range, Upper Sonoran and Transition.

Citellus armatus (Kennicott)†*

1863. *Spermophilus armatus* Kennicott, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, p. 158.

1891. *Spermophilus armatus* Merriam, North Amer. Fauna No. 5, p. 38, July 30, 1891.

1904. [*Citellus*] *armatus* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 339.

1938. *Citellus armatus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 78, May 18, 1938.

Type Locality.—Foothills of the Uinta Mountains, near Fort Bridger, Uinta County, Wyo. *Range.*—Mountains and foothills of western Wyoming, extreme southwestern Montana, southeastern Idaho, and northern and central Utah; north to Gallatin and Park Counties, Mont.; east to foothills of Shoshone and Wind River Mountains, Wyo.; south to Fish Lake Plateau, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 26, Feb. 15, 1951); west to Donovan, Mont., to Albion, Cassia County, south of Snake River, and to Big Lost River and Pahsimeroi Valleys north of Snake River in Idaho (Davis, The Recent mammals of Idaho, p. 170, Apr. 5, 1939), and to Raft River Mountains, Utah. Zonal range, Canadian and Transition.

Citellus beldingi beldingi (Merriam) †*

1888. *Spermophilus beldingi* Merriam, Ann. New York Acad. Sci., vol. 4, p. 317, Dec. 28, 1888.

1904. [*Citellus*] *beldingi* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 339.

1938. *Citellus beldingi beldingi* A. H. Howell, North Amer. Fauna No. 56 (April), p. 81, May 18, 1938.

Type Locality.—Donner [=Summit], Placer County, Calif. *Range.*—High mountain meadows in central Sierra Nevada, from Nevada County (Independence Lake) south to headwaters of Kings River, Fresno County, Calif.; and Sierra Nevada and adjoining Carson Valley in vicinity of Lake Tahoe in central western Nevada (Hall, Mammals of Nevada, p. 309, July 1, 1946). Zonal range, Hudsonian and Canadian (6,500 to 11,800 feet).

Citellus beldingi creber Hall*

1940. *Citellus beldingi crebrus* Hall, Murrelet, vol. 21, No. 3, p. 59, Dec. 20, 1940.

Type Locality.—Reese River Valley, 7 miles north of Austin, Lander County, Nev. *Range.*—Central and northern Nevada, west to western base of Pine Forest Mountains and to north-central Nye County, southern Idaho, and southeastern Oregon. Recorded also at Standrod, Raft River Mountains, Boxelder County, Utah (Porter, Journ. Mamm., vol. 31, No. 2, p. 198, May 25, 1950).

Citellus beldingi oregonus (Merriam) †*

1898. *Spermophilus oregonus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 69, Mar. 24, 1898.

1904. [*Citellus*] *oregonus* Trouessart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 339.

1938. *Citellus beldingi oregonus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 83, May 18, 1938.

Type Locality.—Swan Lake Valley, Klamath Basin, Klamath County, Oreg. *Range.*—Eastern Oregon (except southeastern corner), southern Oregon (east of Cascade Divide), northeastern California, and northwestern Nevada; north to Heppner and Elgin, Oregon; south to Plumas County, Calif., and Washoe County, Nev.; west to Klamath Lake, Oreg., and Goose Nest Mountain, Calif. Zonal range, Upper Sonoran and Transition.

parryii—group

Citellus columbianus columbianus (Ord) *

1815. *Arctomys columbianus* Ord, *in* [Guthrie], A new geographical, historical, and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, p. 292; described on p. 303.

1829. *Arctomys parryi* var. *β erythrogluteia* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 161. (Rocky Mountains, near the sources of Elk River [= Wolf Plain, 30 miles west of Rock Lake, Alberta]. See

Preble, North Amer. Fauna No. 27, pp. 164–165, Oct. 26, 1908; and Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 109, Jan. 24, 1947.)

1891. *Spermophilus columbianus* Merriam, North Amer. Fauna No. 5, p. 39, July 30, 1891.

1903. *Citellus columbianus albertae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 537, Oct. 10, 1903. (Canadian National Park, Banff, Alberta.)

1938. *Citellus columbianus columbianus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 85, May 18, 1938.

Type Locality.—Camas prairie between forks of Clearwater or Kooskooskie River [along Jim Ford Creek about 7 miles northeast of mouth of Lolo Fork of Clearwater River], Idaho (see Merriam, op. cit., p. 41; and V. Bailey, North Amer. Fauna No. 55 (June), p. 147, Aug. 29, 1936). *Range.*—Rocky Mountain region of western Montana, Idaho, northeastern Washington, southeastern British Columbia and western Alberta; also plains of eastern Washington and mountains of east-central Oregon (exclusive of Blue Mountains); north to headwaters of South Pine River and mountains on east side of lower Parsnip River, British Columbia; in Alberta on eastern slopes of Rocky Mountains north at least to Smoky River Valley 50 miles north of Jasper (Anderson, loc. cit); south to Craters of the Moon, Butte County, Idaho, and Harney County, Oreg.; east to Cutbank and Townsend, Mont.; west to Shuswap and Okanagan Lake, British Columbia, Oroville, Washington, and Snow Mountain, head of Silver Creek, Harney County, Oreg. Zonal range, Canadian and Hudsonian.

Citellus columbianus ruficaudus A. H. Howell†*

1928. *Citellus columbianus ruficaudus* [sic] A. H. Howell, Proc. Biol. Soc. Washington, vol. 41, p. 212, Dec. 18, 1928; North Amer. Fauna No. 56 (April), p. 89, May 18, 1938.

Type Locality.—Wallowa Lake, Wallowa County, Oreg. *Range.*—The Blue Mountains region of Oregon and Washington, from Prescott and Dayton, Wash., south to Dixie Butte, Grant County, Oreg.; east to Wallowa Mountains, Oreg. Zonal range, Canadian and Hudsonian.

Citellus parryii parryii (Richardson)*

1825. *Arctomys parryii* Richardson, *in* Parry, Journal of a second voyage . . . , p. 316 (Appendix).

1829. *Arctomys parryi* var. *phaeognatha* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 161. (Hudson Bay.)

1861. *A*[*rctomys*] *kennicottii* Ross, Canadian Nat. Geol., vol. 6, p. 434, 1861. (Fort Good Hope, Mackenzie District, Northwest Territories, Canada.)

1884. *Spermophilus empetra empetra* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1903. *Citellus parryii* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 31, p. 75, Aug. 24, 1903.

1908. *Citellus parryi kennicotti* Preble, North Amer. Fauna No. 27, p. 162, Oct. 26, 1908.

1938. *Citellus parryii parryii* A. H. Howell, North Amer. Fauna No. 56 (April), p. 91, May 18, 1938. (*Citellus undulatus* Pallas (1779) is available as a specific name for the *eversmanni* and *parryii* groups which are regarded as conspecific by Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 5 (Rodentia, cont.), p. 92, 1947.)

Type Locality.—Five Hawser Bay, Lyon Inlet, Melville Peninsula, Franklin, Canada. *Range.*—Barren Grounds of northern Canada from Melville Peninsula, and western shores of Hudson Bay south to a point about 25 miles south of Cape Eskimo, Hudson Bay; west to Artillery Lake, Mackenzie District, and northwest to Great Bear Lake and Rampart House on Alaska–Yukon boundary; south to Canol Road, Mile 45E and Sekwi River, east slope of Mackenzie Mountains in Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 110, Jan. 24, 1947). Zonal range, Arctic.

Citellus parryii barrowensis (Merriam)†*

1900. *Spermophilus barrowensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 19, Mar. 14, 1900.

1900. *Spermophilus beringensis* Merriam†, Proc. Washington Acad. Sci., vol. 2, p. 20, Mar. 14, 1900. (Cape Lisbourne, Alaska.)

1938. *Citellus parryii barrowensis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 95, May 18, 1938.

Type Locality.—Point Barrow, Alaska. *Range.*—Arctic coast of Alaska from Point Hope eastward at least to Point Barrow; limits of range not known. Recorded south to Umiat and to near Tolugak Lake, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950). Zonal range, Arctic.

Citellus parryii plesius (Osgood)†*

1900. *Spermophilus empetra plesius* Osgood, North Amer. Fauna No. 19, p. 29, Oct. 6, 1900.

1903. *C[itellus] plesius* Osgood, Proc. Biol. Soc. Washington, vol. 16, p. 25, Mar. 19, 1903.

1938. *Citellus parryii plesius* A. H. Howell, North Amer. Fauna No. 56 (April), p. 97, May 18, 1938.

Type Locality.—Bennett City, head of Lake Bennett, British Columbia, Canada. *Range.*—Northwestern British Columbia, greater part of Yukon (except extreme northern part) and mountainous parts of Mackenzie (west of Mackenzie River); north to Ogilvie Range (head of Coal Creek), Yukon; east to Fort Liard and Nahanni Hills, Mackenzie; south to vicinity of Tatletuey Lake, British Columbia; west to White Pass, British Columbia, and Delta River (Ober Creek), Alaska. Zonal range, Hudsonian.

Citellus parryii ablusus Osgood†*

1903. *Citellus plesius ablusus* Osgood, Proc. Biol. Soc. Washington, vol. 16, p. 25, Mar. 19, 1903.

1903. *Citellus stonei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 537, Oct. 10, 1903. (Stevana Flats, near Port Moller, Alaska Peninsula, Alaska. Not Wrangell, Alaska. See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. xvii, 1903.)

1938. *Citellus parryii ablusus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 98, May 18, 1938.

Type Locality.—Nushagak, Alaska. *Range.*—Alaska, mainly south of Yukon Valley; north on coast to Eschscholtz Bay; west on Alaska Peninsula to its tip;

south to base of Kenai Peninsula; east to headwaters of Tanana River; introduced on Unalaska, Umnak, and Kavalga Islands. Zonal range, Hudsonian and Arctic.

Citellus parryii nebulicola Osgood†*

1903. *Citellus nebulicola* Osgood, Proc. Biol. Soc. Washington, vol. 16, p. 26, Mar. 19, 1903.

1938. *Citellus parryii nebulicola* A. H. Howell, North Amer. Fauna No. 56 (April), p. 100, May 18, 1938.

Type Locality.—Nagai Island, Shumagin Islands, Alaska. *Range.*—Shumagin Islands (Nagai, Simeonoff, and Koniuji). Zonal range, Hudsonian.

Citellus parryii lyratus Hall and Gilmore*

1932. *Citellus lyratus* Hall and Gilmore, Univ. California Publ. Zool. vol. 38, No. 9, p. 396, Sept. 17, 1932.

1938. *Citellus parryii lyratus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 101, May 18, 1938.

Type Locality.—Iviktook Lagoon (about 35 miles northwest of Northeast Cape), Saint Lawrence Island, Bering Sea, Alaska. *Range.*—Saint Lawrence Island. Zonal range, Arctic.

Citellus kodiacensis (J. A. Allen)†*

1874. *Spermophilus parryi* var. *kodiacensis* J. A. Allen, Proc. Boston Soc. Nat. Hist., vol. 16, p. 292.

1884. *Spermophilus empetra kodiacensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. [*Citellus parryi*] *kadiacensis* [sic] Trouesart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 338.

1938. *Citellus kodiacensis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 103, May 18, 1938.

Type Locality.—Kodiak Island, Alaska. *Range.*—Kodiak Island. Zonal range, Hudsonian.

Citellus osgoodi (Merriam)†*

1900. *Spermophilus osgoodi* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 18, Mar. 14, 1900.

1903. [*Citellus*] *osgoodi* Osgood, Proc. Biol. Soc. Washington, vol. 16, p. 27, Mar. 19, 1903.

1938. *Citellus osgoodi* A. H. Howell, North Amer. Fauna No. 56 (April), p. 104, May 18, 1938.

Type Locality.—Fort Yukon, Alaska. *Range.*—The Yukon Valley, from a point about 25 miles above Circle to Yukon Flats, west of Fort Yukon and possibly to mouth of Tanana River. Zonal range, Hudsonian.

Subgenus ICTIDOMYS J. A. Allen

1877. *Ictidomys* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 821, August 1877. (Type, *Sciurus tridecemlineatus* Mitchill; see Merriam, Science, new ser., vol. 2, p. 418, Sept. 27, 1895.)

1907. *Ictidomoides* Mearns, U. S. Nat. Mus. Bull. 56, p. 328, Apr. 13, 1907. (Type, *Sciurus mexicanus* Erxleben.)

tridecemlineatus—group

Citellus tridecemlineatus tridecemlineatus (Mitchill) *

1821. *Sciurus tridecem-lineatus* Mitchill, Med. Repos., new ser., vol. 6 (21), p. 248.

1884. *Spermophilus tridecimlineatus tridecimlineatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. [*Citellus*] *tridecimlineatus* Trouessart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 341.

1938. *Citellus tridecemlineatus tridecemlineatus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 107, May 18, 1938.

Type Locality.—Central Minnesota (See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 338, Nov. 8, 1895). *Range.*—Parts of southern Alberta, Saskatchewan, and Manitoba; northeastern Montana; eastern parts of North Dakota, South Dakota and Nebraska; northeastern Kansas; northern Missouri; all of Iowa; most of Minnesota and Wisconsin; Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 179, 1946); northern parts of Illinois and Indiana; southwestern Ohio; north to Athabaska Landing, Alberta; east to Fairfield and Knox Counties, Ohio (Leedy, Journ. Mamm., vol. 28, No. 3, p. 290, June 2, 1947); south into northeastern Kansas; west to Red Deer, Alberta; and St. Mary Lake, Mont. Zonal range, Transition and Upper Austral.

Citellus tridecemlineatus pallidus (J. A. Allen) †*

1877. [*Spermophilus tridecemlineatus*] var. *pallidus* J. A. Allen, in Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 872, August 1877.

1884. *Spermophilus tridecimlineatus pallidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1895. *Spermophilus tridecemlineatus olivaceus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 337, Nov. 8, 1895. (Custer, Custer County, Black Hills, S. Dak.)

1904. [*Citellus tridecimlineatus*] *pallidus* Trouessart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 341.

Type Locality.—Plains of the lower Yellowstone River, Mont. (See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 338, Nov. 8, 1895. Specimen from mouth of the Yellowstone River designated as lectotype by A. H. Howell, North Amer. Fauna No. 56 (April), p. 112 (footnote), May 18, 1938.) *Range.*—Through drier parts of southwestern Saskatchewan (Cypress Hills) and extreme southern parts of Alberta to edge of foothills of Rocky Mountains in Waterton Lakes National Park (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 111, Jan. 24, 1947); plains of Montana east of Rocky Mountains, eastern Wyoming, northeastern Colorado, northwestern Kansas, western parts of Nebraska and South Dakota, and southwestern North Dakota; east to Missouri River in North Dakota, and to about long. 100° W. in Nebraska and Kansas; south to Ellis and Trego Counties, Kans., and Colorado Springs, Colo.; west to Casper and Laramie, Wyo., and to Canadian Creek (North Park) and Como (South Park), Colo. Zonal range, Upper Sonoran and Transition.

Citellus tridecemlineatus alleni (Merriam)†*

1898. *Spermophilus tridecemlineatus alleni* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 71, Mar. 24, 1898.

1904. [*Citellus tridecimlineatus*] *alleni* Trouessart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 341.

Type Locality.—Near head of Canyon Creek, west slope of Bighorn Mountains, Washakie County, Wyo. Altitude, 8,000 feet. *Range.*—The Bighorn Mountains and Bighorn Basin, Wyo.; south to head of Red Canyon, near Miners Delight, Fremont County, and west to New Fork of Green River. Reported also from Franks Butte, near head of Sage Creek, Park County, Wyo. Zonal range, Transition.

Citellus tridecemlineatus hollisteri V. Bailey†*

1913. *Citellus tridecemlineatus hollisteri* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 131, May 21, 1913.

Type Locality.—Elk Valley, Mescalero Indian Reservation, Sacramento Mountains, Otero County, N. Mex. Altitude, 8000 feet. *Range.*—Sacramento Mountains, N. Mex., and mountain valleys of northeastern New Mexico; western limits of range not known. Zonal range, Transition.

Citellus tridecemlineatus monticola A. H. Howell†*

1928. *Citellus tridecemlineatus monticola* A. H. Howell, Proc. Biol. Soc. Washington, vol. 41, p. 214, Dec. 18, 1928.

Type Locality.—Marsh Lake, White Mountains, Apache County, Ariz. Altitude, 9,000 feet. *Range.*—Known from type locality only. Zonal range, Transition.

Citellus tridecemlineatus parvus (J. A. Allen) *

1895. *Spermophilus tridecemlineatus parvus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 337, Nov. 8, 1895.

1904. [*Citellus tridecimlineatus*] *parvus* Trouessart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 341.

Type Locality.—Kennedy's Hole, Uncompahgre Indian Reservation, 20 miles northeast of Ouray, Uintah County, northeastern Utah. *Range.*—Uncompahgre Plateau, eastern Utah, and desert regions of southwestern Wyoming, northwestern and south-central Colorado, and west-central New Mexico; north to Natrona County, Wyo.; east to Independent Rock, Wyo.; south to St. Augustine Plains, N. Mex., and west to Springerville, Ariz. Zonal range, Upper Sonoran.

Citellus tridecemlineatus hoodii (Sabine)

1822. *Arctomys hoodii* Sabine, Trans. Linn. Soc. London, vol. 13, p. 590.

1947. *Citellus tridecemlineatus hoodii* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 111, Jan. 24, 1947. (Regarded as identical with *tridecemlineatus* by A. H. Howell, North Amer. Fauna No. 56, p. 107, May 18, 1938.)

Type Locality.—Carlton House (now Carlton), southwest of Prince Albert, Saskatchewan, Canada. *Range.*—Through west-central Manitoba from Riding Mountains and Swan River northwest through central Saskatchewan to Prince Albert National Park, Saskatchewan, Canada.

Citellus tridecemlineatus texensis (Merriam) †*

1898. *Spermophilus tridecemlineatus texensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 71, Mar. 24, 1898.

1899. *Spermophilus tridecemlineatus badius* Bangs, Proc. New England Zool. Club, vol. 1, p. 1, Feb. 8, 1899. (Stotesbury, Vernon County, Mo.)

1904. [*Citellus tridecimlineatus*] *texensis* Trouessart, Catalogus Mammalium . . ., Suppl., fasc. 2, p. 342.

1938. *Citellus tridecemlineatus texensis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 110, May 18, 1938.

Type Locality.—Gainesville, Cooke County, Tex. *Range.*—Prairie region of middle and eastern portions of Texas and Oklahoma; north to south-central (Cairo and Garden Plain) and southeastern Kansas; east to southwestern Missouri (Stotesbury and Golden City); south to Bee County, Tex.; west to Vernon, Tex., and Mount Scott, Wichita Mountains, Okla. Zonal range, Lower Austral.

Citellus tridecemlineatus arenicola A. H. Howell†*

1928. *Citellus tridecemlineatus arenicola* A. H. Howell, Proc. Biol. Soc. Washington, vol. 41, p. 213, Dec. 18, 1928.

Type Locality.—Pendennis, Lane County, Kans. *Range.*—Western Kansas (intergrades with *pallidus* at type locality; see Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 72, September 1944), eastern Colorado, northwestern Texas, northwestern Oklahoma, and eastern New Mexico; north to Logan County, Colo.; east to Barber County, Kans.; south to Lubbock, Tex., and Roswell, N. Mex.; west to Lincoln County, N. Mex. Zonal range, Upper Sonoran.

Citellus mexicanus mexicanus (Erxleben) *

1777. [*Sciurus*] *mexicanus* Erxleben, Systema regni animalis . . . , p. 428.

1834. *Citillus* [sic] *mexicanus* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere, . . . , (text accompanying pl. 31), 1834.

1884. *Spermophilus mexicanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1903. *Citellus mexicanus* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 80, May 29, 1903.

Type Locality.—Not designated by Erxleben; but the name *Sciurus mexicanus* was restricted by Lichtenstein to the animal occurring at Toluca, México. (See Mearns, Proc. U. S. Nat. Mus., vol. 18, p. 443, May 23, 1896.) *Range.*—Central México, from Jalisco and Guanajuato south to southern Puebla. Zonal range, Lower Sonoran.

Citellus mexicanus parvidens (Mearns) †*

1896. *Spermophilus mexicanus parvidens* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 1, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 443, May 23, 1896.)

1903. *Citellus mexicanus parvidens* Stone and Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 55, p. 21, May 7, 1903.

Type Locality.—Fort Clark, Kinney County, Tex. *Range.*—Northeastern Mexico, western Texas, and southeastern New Mexico; north to Roswell, N. Mex., and Borden County, Tex.; east to Austin and Rockport, Tex.; south to southern Tamaulipas; west to central Coahuila and extreme western Texas (El Paso). Zonal range, Lower Sonoran.

spilosoma—group

Citellus spilosoma spilosoma (Bennett) *

1833. *Spermophilus spilosoma* Bennett, Proc. Zool. Soc. London, 1833, pt. 1, p. 40, May 17, 1833.

1884. *Spermophilus spilosoma* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. *Citellus spilosoma* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 209, May 28, 1904.

Type Locality.—"That part of California that adjoins México." (Name restricted by Merriam, North Amer. Fauna No. 4, p. 37, Oct. 8, 1890, to the animal occurring in northern México and extreme western Texas; city of Durango, Durango, México, designated as the type locality by A. H. Howell, North Amer. Fauna No. 56 (April), p. 122, May 18, 1938.) *Range.*—Central México from the city of Durango south to Aguascalientes; east to western San Luis Potosí, west of city of San Luis Potosí (Dalquest, Proc. Biol. Soc. Washington, vol. 64, p. 107, Aug. 24, 1951). Zonal range, Lower Sonoran.

Citellus spilosoma pallescens A. H. Howell† *

1928. *Citellus spilosoma pallescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 41, p. 212, Dec. 18, 1928.

Type Locality.—La Ventura, Coahuila, México. *Range.*—North-central México from southern Chihuahua (Santa Rosalía) southward to extreme northern San Luis Potosí and eastward to southern Nuevo León (Doctor Arroyo). Zonal range, Lower Sonoran.

Citellus spilosoma cabrerai Dalquest*

1951. *Citellus spilosma cabrerai* Dalquest, Proc. Biol. Soc. Washington, vol. 64, p. 106, Aug. 24, 1951.

Type Locality.—10 kilometers north-northeast of Nuñez, San Luis Potosí, México. *Range.*—Desert areas of central and eastern San Luis Potosí and probably adjacent parts of Guanajuato and Tamaulipas, México.

Citellus spilosoma canescens (Merriam) †*

1890. *Spermophilus canescens* Merriam, North Amer. Fauna No. 4, p. 38, Oct. 8, 1890.

1890. *Spermophilus spilosoma macrospilotus* Merriam†, North Amer. Fauna No. 4, p. 38, Oct. 8, 1890. (Oracle, Pinal County, Ariz.)

1901. [*Spermophilus spilosoma*] *microspilotus* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 96, Mar. 6, 1901. (Accidental renaming of *macrospilotus.*)

1902. *Spermophilus spilosoma arens* V. Bailey†, Proc. Biol. Soc. Washington, vol. 15, p. 118, June 2, 1902. (El Paso, El Paso County, Tex.)

1932. *Citellus spilosoma canescens* V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 109, Mar. 1, 1932.

Type Locality.—Willcox, Cochise County, Ariz. *Range.*—Extreme northern Sonora, west as far as La Noria, Río Santa Cruz (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 37, Feb. 15, 1938); southeastern Arizona and southwestern New Mexico; south to Chihuahua City, Chihuahua, México; west to Altar Valley, Ariz.; north to Gila Valley (Pima), Ariz.; east to Deming, N. Mex., and Fort Hancock, Tex. Zonal range, Lower Sonoran.

Citellus spilosoma marginatus (V. Bailey)†*

1890. *Spermophilus spilosoma major* Merriam†, North Amer. Fauna No. 4, p. 39, Oct. 8, 1890. (Preoccupied by *Citellus major* Pallas, 1778.)

1902. *Spermophilus spilosoma marginatus* V. Bailey†, Proc. Biol. Soc. Washington, vol. 15, p. 118, June 2, 1902. (Alpine, Brewster County, Tex. For status, see Blair, Univ. Michigan Mus. Zool. Misc. Publ. 46, p. 26, June 28, 1940; and Davis and Robertson, Journ. Mamm., vol. 25, No. 3, p. 266, Sept. 8, 1944.)

1904. [*Citellus spilosoma*] *major* Trouessart, Catalogus Mammalium . . . , suppl., fasc. 2, p. 340.

Type Locality.—Albuquerque, Bernalillo County, N. Mex. *Range.*—Eastern New Mexico, western Texas, western Oklahoma, southwestern Kansas, and southeastern Colorado; north to Adams and Yuma Counties, Colo.; east to Kinsley, Kans., Woodward, Okla., and Colorado (city), Tex.; south to Presidio and Brewster Counties, Tex.; west to Saint Augustine Plains, N. Mex. Zonal range, Upper Sonoran.

Citellus spilosoma annectens (Merriam)†*

1893. *Spermophilus spilosoma annectens* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 132, Dec. 28, 1893.

1904. [*Citellus spilosoma*] *annectens* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 340.

Type Locality.—"The Tanks," 12 miles from Point Isabel, Padre Island, Cameron County, Tex. *Range.*—Lower Río Grande Valley, Tex., and Gulf coast section from mouth of the river north to Nueces River; Padre and Mustang Islands. Zonal range, Lower Sonoran.

Citellus spilosoma pratensis (Merriam)†*

1890. *Spermophilus spilosoma pratensis* Merriam, North Amer. Fauna No. 3, p. 55, Sept. 11, 1890.

1890. *Spermophilus spilosoma obsidianus* Merriam†, North Amer. Fauna No. 3, p. 56, Sept. 11, 1890. (Cedar belt, northeast of San Francisco Mountain, Coconino County, Ariz.)

1904. [*Citellus spilosoma*] *pratensis* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 340.

Type Locality.—Pine plateau at north foot of San Francisco Mountain, Coconino County, Ariz. *Range.*—North-central Ariz., between Grand Canyon and Mogollon Plateau; west to Seligman and Aubrey Valley. Zonal range, Upper Sonoran and Transition.

Citellus spilosoma cryptospilotus (Merriam)†*

1890. *Spermophilus cryptospilotus* Merriam, North Amer. Fauna No. 3, p. 57, Sept. 11, 1890.

1904. [*Citellus*] *cryptospilotus* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 3, p. 341.

1938. *Citellus spilosoma cryptospilotus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 130, May 18, 1938.

Type Locality.—"Tenebito" [=Dinnebito] Wash, Painted Desert, Coconino County, Ariz. *Range.*—Northeastern Arizona, southeastern Utah, southwestern

Colorado and northwestern New Mexico; north to Monticello, Utah; east to Thoreau, N. Mex.; south to Holbrook, Ariz.; west to Little Colorado River. Zonal range, Upper and Lower Sonoran.

Citellus spilosoma obsoletus (Kennicott)†*

1863. *Spermophilus obsoletus* Kennicott, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, p. 157.

1884. *Spermophilus obsoletus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. [*Citellus*] *obsoletus* Trouessart, Catalogus Mammalium . . . . , suppl., fasc. 2, p. 340.

1938. *Citellus spilosoma obsoletus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 130, May 18, 1938.

Type Locality.—"Fifty miles west of Fort Kearney, Nebraska" (A. H. Howell, op. cit., p. 131); therefore probably in the western half of Dawson County. *Range.*—Sandhill region of Nebraska; north to Todd County, S. Dak.; east to Neligh, Antelope County, Nebr.; south to Tuttle, Kit Carson County, Colo., and extreme northwestern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 73, September 1944); west to Platte County, Wyo., and Greeley, Weld County, Colo. Zonal range, Upper Sonoran.

Citellus perotensis (Merriam)†*

1893. *Spermophilus perotensis* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 131, Dec. 28, 1893.

1904. [*Citellus*] *perotensis* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 145, Aug. 2, 1904.

Type Locality.—Perote, Veracruz, México. *Range.*—Extreme eastern border of Mexican tableland in vicinity of Perote, Veracruz, at altitudes of from 7,800 to 7,900 feet. Ranges to a point 10 miles south of Perote and eastward to within a few miles of Las Vigas. Recorded also from near San Salvador and Laguna de las Minas, Puebla (Davis, Journ. Mamm., vol. 25, No. 4, p. 383, Dec. 12, 1944). Zonal range, Upper Sonoran.

Subgenus POLIOCITELLUS A. H. Howell

1938. *Poliocitellus* A. H. Howell, North Amer. Fauna No. 56, (April), p. 42, May 18, 1938. (Type, *Arctomys franklinii* Sabine.)

Citellus franklinii (Sabine)*

1822. *Arctomys franklinii* Sabine, Trans. Linn. Soc. London, vol. 13, p. 587.

1884. *Spermophilus franklini* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. [*Citellus*] *franklini* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 342.

Type Locality.—Vicinity of Carlton House, Saskatchewan, Canada. (See Preble, North Amer. Fauna No. 27, p. 165, Oct. 26, 1908.) *Range.*—Great Plains region of southern Canada, north to Athabaska Landing, Alberta, Prince Albert National Park, Saskatchewan, and Lake Winnipeg, Manitoba; east to Emo and Rainy River in extreme southwestern Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946) pp. 111–112, Jan. 24, 1947); in upper Mississippi and Missouri Valleys of United States, west to Missouri River in North Dakota and South Dakota, to central Nebraska and to eastern Kansas; and from northwestern Indiana, and southern Wisconsin, and southern and western Minnesota south to central Missouri and southeastern Kansas. Zonal range, Transition and Upper Austral.

Subgenus OTOSPERMOPHILUS Brandt

1844. *Otospermophilus* Brandt, Bull. Acad. Imp. Sci. St. Pétersbourg, Class. Phys. Math., vol. 2, p. 379, March 1844. (Type, *Sciurus grammurus* Say.)

Citellus variegatus variegatus (Erxleben)*

1777. [*Sciurus*] *variegatus* Erxleben, Systema regni animalis . . . , p. 421.

1904. [*Citellus*] *variegatus* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 148, Aug. 2, 1904.

1938. *Citellus variegatus variegatus* A. H. Howell, North Amer. Fauna No. 56, (April), p. 136, May 18, 1938.

Type Locality.—Not designated by Erxleben; fixed at Valley of México, near city of México (Nelson, Science, new ser., vol. 8, No. 208, p. 898, Dec. 23, 1898). *Range.*—Central México, from southern Zacatecas and San Luis Potosí south to Michoacán and Valley of México; west to Colima, Jalisco, and Nayarit. Zonal range, Upper and Lower Sonoran.

Citellus variegatus rupestris J. A. Allen*

1903. *Citellus* (*Otospermophilus*) *grammurus rupestris* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 595, Nov. 12, 1903.

1938. *Citellus variegatus rupestris* A. H. Howell, North Amer. Fauna No. 56, (April), p. 138, May 18, 1938.

Type Locality.—Río Sestín, northwestern Durango, México. *Range.*—Eastern and western slopes of Sierra Madre and adjoining plains on eastern side from southern Durango north to west-central Chihuahua (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 297, Aug. 14, 1942); east to city of Chihuahua and Santa Rosalía; west to Sierra de Choix, Sinaloa. Zonal range, Upper and Lower Sonoran and Transition.

Citellus variegatus couchii (Baird)†*

1855. *Spermophilus couchii* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 332, April 1855.

1938. *Citellus variegatus couchii* A. H. Howell, North Amer. Fauna No. 56 (April), p. 139, May 18, 1938.

Type Locality.—Santa Catarina (a few miles west of Monterrey), Nuevo León, México. *Range.*—Northeastern México, from southern Coahuila and Nuevo León north to Chisos Mountains, Tex. (Rock squirrel of Davis Mountain region, Tex., regarded as closer to typical *couchii* by Blair, Univ. Michigan Mus. Zool. Misc. Publ. 46, p. 26, June 28, 1940.) Zonal range, Upper and Lower Sonoran.

Citellus variegatus buckleyi (Slack)*

1861. *Spermophilus buckleyi* Slack, Proc. Acad. Nat. Sci. Philadelphia, vol. 13, p. 314.

1896. *Spermophilus grammurus buckleyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 67, Apr. 22, 1896.

1905. *Citellus variegatus buckleyi* V. Bailey, North Amer. Fauna No. 25, p. 84, Oct. 24, 1905.

Type Locality.—Packsaddle Mountain, Llano County, Tex. *Range.*—South-central Texas from upper Nueces River (Rock Springs) east nearly to San Antonio and Austin; north to San Saba River. Zonal range, Upper and Lower Sonoran.

Citellus variegatus grammurus (Say) *

1823. *S[ciurus] grammurus* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 2, p. 72.

1884. *Spermophilus grammurus grammurus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. *[Citellus variegatus] grammurus* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 149, Aug. 2, 1904.

1913. *Citellus variegatus juglans* V. Bailey†, Proc. Biol. Soc. Washington, vol. 26, p. 131, May 21, 1913. (Glenwood, on Rio San Francisco, southwest base of Mogollon Mountains, Catron County, N. Mex.)

Type Locality.—Purgatory River, near mouth of Chacuaco Creek, Las Animas County, Colo. (See Cary, North Amer. Fauna No. 33, p. 87, Aug. 17, 1911.) *Range.*—Mountain valleys and foothills in Colorado, New Mexico, Arizona, southwestern Utah, southeastern Utah east of Colorado and Green Rivers, and Book Cliffs west to Carbon County (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 29, Feb. 15, 1951), southern Nevada, northwestern Chihuahua, and eastern Sonora; north to eastern Larimer County, Colo., and northern White Pine County, Nev. (Hall, Mammals of Nevada, p. 310, July 1, 1946); east to Baca County, Colo., and rocky ravines in Oklahoma Panhandle as far east as Beaver County (Blair, Amer. Midl. Nat., vol. 22, p. 110, July 1939); south to southern Texas (Eagle Pass), and southern Sonora; west to Toyabe Mountains, Nev., and Providence Mountains, Calif. Zonal range, Upper Sonoran and Transition (4,200 to 8,500 feet in New Mexico). Recorded also from Kaibab Plateau of northern Arizona (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 346, Dec. 15, 1952).

Citellus variegatus tularosae Benson

1932. *Citellus grammurus tularosae* Benson, Univ. California Publ. Zool., vol. 38, No. 5, p. 336, Apr. 14, 1932.

1938. *Citellus variegatus tularosae* A. H. Howell, North Amer. Fauna No. 56 (April), p. 145, May 18, 1938.

Type Locality.—French's Ranch, 12 miles northwest of Carrizozo, Lincoln County, N. Mex. Altitude, 5,400 feet. *Range.*—Lava beds of Tularosa Basin in Lincoln and Otero Counties, N. Mex. Zonal range, Lower Sonoran.

Citellus variegatus utah Merriam†*

1903. *Citellus grammurus utah* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 77, May 29, 1903.

1905. *Citellus variegatus utah* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 115, Dec. 6, 1905.

Type Locality.—Foot of Wasatch Mountains, near Ogden, Weber County, Utah. *Range.*—Central Utah, from Wasatch Range south to Beaver Mountains. (Limits of range imperfectly known.) Zonal range, Transition and Upper Sonoran.

Citellus beecheyi beecheyi (Richardson)*

1829. *Arctomys* (*Spermophilus*) *beecheyi* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 170.

1884. *Spermophilus grammurus beecheyi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1913. *Citellus beecheyi beecheyi* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 345, Aug. 28, 1913.

Type Locality.—"Neighborhood of San Francisco and Monterey, California" (Richardson, loc. cit., quoting "Mr. Alexander Collie, surgeon of His Majesty's ship *Blossom*"); restricted to Monterey, Monterey County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 120, Sept. 26, 1933). *Range.*—Western California, from San Francisco Bay south to northern San Diego County; eastward through Coast Ranges and San Gabriel Mountains. Zonal range, Upper Sonoran and Transition.

Citellus beecheyi douglasii (Richardson)*

1829. *Arctomys?* (*Spermophilus?*) *douglasii* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 172.

1884. *Spermophilus grammurus douglassi* [sic] True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1913. *Citellus beecheyi douglasi* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 345, Aug. 28, 1913.

Type Locality.—Banks of the Columbia River, Oreg. *Range.*—Klickitat and Skamania Counties, Wash., from Stevenson on west and some distance past Goldendale on north, to Alderdale on east (Scheffer and Dalquest, Murrelet, vol. 20, p. 44, Aug. 19, 1939); western Oregon and northern California, from Columbia River Valley south nearly to San Francisco Bay, Calif.; east to Deschutes River Valley, Oreg.; Lake City, Calif., and a line reaching from latter point to Eagle Lake, Lyonsville, Maglia, and Nelson; from there southward occurring only west of Sacramento River. Zonal range, mainly Upper Sonoran and Transition; into Lower Sonoran in Sacramento Valley and into Canadian on Siskiyou Mountains (6,000 feet) and Scott Mountains (6,800 feet).

Citellus beecheyi sierrae A. H. Howell†*

1938. *Citellus beecheyi sierrae* A. H. Howell, North Amer. Fauna No. 56 (April), p. 153, May 18, 1938.

Type Locality.—Emerald Bay, Lake Tahoe, El Dorado County, Calif. *Range.*—Higher parts of northern Sierra Nevada, from Plumas County south to Mariposa County (upper Merced River). Zonal range, Transition and Canadian.

Citellus beecheyi fisheri (Merriam)†*

1893. *Spermophilus beecheyi fisheri* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 133, Dec. 28, 1893.

1913. *Citellus beecheyi fisheri* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 346, Aug. 28, 1913.

Type Locality.—South fork of Kern River, 3 miles above Onyx, Kern County, Calif. (A. B. Howell, Journ. Mamm., vol. 4, No. 4, p. 266, Nov. 1, 1923). *Range.*—Greater part of central California, including San Joaquin and Sacramento Valleys and the southern Sierra Nevada; north on eastern side of Sacramento River to southern Butte County, then northeastward to Susanville;

east to western side of Pyramid Lake and western Churchill County, Nev., and to Walker Pass, in southern Sierra Nevada, Calif.; south to Tehachapi Mountains; west to Cuyama Valley, Carrizo Plain, and western border of San Joaquin Valley. Zonal range, Upper Sonoran and Transition.

Citellus beecheyi parvulus A. H. Howell†*

1931. *Citellus beecheyi parvulus* A. H. Howell, Journ. Mamm., vol. 12, No. 2, p. 160, May 14, 1931.

Type Locality.—Shepherd Canyon, Argus Mountains, Inyo County, Calif. *Range.*—Desert ranges of southern California (except Providence Mountains); north to Owens Valley; south to San Jacinto Mountains. Zonal range, mainly Transition and Upper Sonoran, but extending into Lower Sonoran.

Citellus beecheyi nudipes Huey*

1931. *Citellus beecheyi nudipes* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 2, p. 18, Oct. 6, 1931.

Type Locality.—Laguna Hanson, lat. 31°58′ N., long. 115°53′ W., Sierra Juárez, Baja California, México. Altitude, 5,200 feet. *Range.*—Northern Baja California and extreme southwestern California, including most of western half of San Diego County. Zonal range, Upper and Lower Sonoran and Transition.

Citellus beecheyi rupinarum Huey*

1931. *Citellus beecheyi rupinarum* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 2, p. 17, Oct. 6, 1931.

Type Locality.—Cataviña, lat. 29°54′ N., long. 114°57′ W., Baja California, México. *Range.*—Deserts of central Baja California, south of Sierra San Pedro Mártir, southern limits of range unknown. Zonal range, Lower Sonoran.

Citellus beecheyi nesioticus Elliot*

1904. *Citellus nesioticus* Elliot, Field Columb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 263, Mar. 7, 1904.

1913. *Citellus beecheyi nesioticus* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 346, Aug. 28, 1913.

Type Locality.—[Near Avalon], Santa Catalina Island, Santa Barbara Islands, Calif. *Range.*—Santa Catalina Island, Calif. Zonal range, Upper Sonoran.

Citellus atricapillus (Bryant)*

1889. *Spermophilus grammurus atricapillus* Bryant, Proc. California Acad. Sci., ser. 2, vol. 2, p. 26, June 20, 1889.

1938. *Citellus atricapillus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 161, May 18, 1938.

Type Locality.—Comondú, Baja California, México. *Range.*—Southern Baja California, from Sierra de San Francisco (lat. 28° N.) south to Comondú (and possibly farther). Zonal range, Lower Sonoran.

Subgenus NOTOCITELLUS A. H. Howell

1938. *Notocitellus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 44, May 18, 1938. (Type, *Spermophilus annulatus* Audubon and Bachman.)

Citellus annulatus annulatus (Audubon and Bachman)*

1842. *Spermophilus annulatus* Audubon and Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 2, p. 319.

1884. *Spermophilus annulatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1938. *Citellus annulatus annulatus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 163, May 18, 1938.

Type Locality.—Unknown; probably in western Mexico; "fixed" at Manzanillo, Colima, México (A. H. Howell, loc. cit.). *Range.*—Colima and northern Guerrero, México; probably also coastal region of Michoacán. Zonal range, entirely Tropical.

Citellus annulatus goldmani (Merriam) †*

1902. *Spermophilus annulatus goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 69, Mar. 22, 1902.

1904. *C[itellus] a[nnulatus] goldmani* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 140, Aug. 2, 1904.

Type Locality.—Santiago, Nayarit, México. *Range.*—Known at present only from southern part of State of Nayarit on west coast of México. Zonal range, Tropical.

Citellus adocetus adocetus Merriam†*

1903. *Citellus adocetus* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 79, May 29, 1903.

Type Locality.—La Salada, 40 miles south of Uruapan, Michoacán, México. *Range.*—Southern Michoacán and northern Guerrero, México. Zonal range, Tropical.

Citellus adocetus arceliae Villa*

1942. *Citellus adocetus arceliae* Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 13, No. 1 (May 14), p. 357, October 1942.

Type Locality.—El Limón ranch, 4 kilometers south of Arcelia, Aldama District, Guerrero, México. *Range.*—Valley of upper Río de las Balsas, Guerrero and Michoacán, México.

Subgenus AMMOSPERMOPHILUS [71] Merriam

1892. *Ammospermophilus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 27, Apr. 13, 1892. (Type, *Tamias leucurus* Merriam.)

Citellus harrisii harrisii (Audubon and Bachman) *

1854. *Spermophilus harrisii* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, p. 267.

1884. *Tamias harrisi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. [*Citellus*] *harrisi* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 141, Aug. 2, 1904.

1938. *Citellus harrisii harrisii* A. H. Howell, North Amer. Fauna No. 56 (April), p. 167, May 18, 1938.

Type Locality.—Not designated by original describers. "Fixed" (A. H. Howell, loc. cit.) in the Santa Cruz Valley, Santa Cruz County, Ariz., at the Mexican boundary line. *Range.*—Greater part of southern, central, and northwestern Arizona; north to Colorado River, west of long. 113° W.; east to southwestern New Mexico (Hidalgo County); south to southern Sonora (Ortiz); west to Quitobaquito, on Mexican border. Zonal range, Lower Sonoran.

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[71] Regarded as a valid genus by Bryant, Amer. Midl. Nat., vol. 33, No. 2, p. 374, March 1945.

Citellus harrisii saxicola (Mearns) †*

1896. *Spermophilus harrisii saxicolus* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 2, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 444, May 23, 1896.)

1904. [*Citellus harrisi*] *saxicola* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 142, Aug. 2, 1904.

1937. *Ammospermophilus harrisii kinoensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 352, June 15 1937. (Bahía Kino, Sonora, México.)

Type Locality.—Tinajas Altas, Gila Mountains, Yuma County, Ariz. *Range.*—Southwestern Arizona and northwestern Sonora, from Colorado River east to about long. 113° W. Zonal range, Lower Sonoran.

Citellus leucurus leucurus (Merriam) †*

1889. *Tamias leucurus* Merriam, North Amer. Fauna No. 2, p. 20, Oct. 1889.

1903. *Citellus leucurus* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, No. 12 (June), p. 210, Aug. 15, 1903.

1904. *Citellus l*[*eucurus*] *vinnulus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 241, Jan. 7, 1904. (Keeler, Owens Lake, Inyo County, Calif.)

1938. *Citellus leucurus leucurus* A. A. Howell, North Amer. Fauna No. 56 (April), p. 170, May 18, 1938.

Type Locality.—San Gorgonio Pass [east of Banning], Riverside County, Calif. *Range.*—Desert regions of southeastern Oregon, southwestern Idaho, Nevada, western Utah, southeastern California, and northeastern Baja California; north to northern Malheur County, Oreg., and Snake River Valley, Idaho; south to San Felipe Bay, Baja California; west to Mohave Desert, Calif. Zonal range, Upper and Lower Sonoran.

Citellus leucurus tersus (Goldman) †*

1929. *Ammospermophilus leucurus tersus* Goldman, Journ. Washington Acad. Sci., vol. 19, No. 19, p. 435, Nov. 19, 1929.

1938. *Citellus leucurus tersus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 173, May 18, 1938.

Type Locality.—Lower end of Prospect Valley, Grand Canyon, Hualpai Indian Reservation, Coconino County, Ariz. Altitude, 4,500 feet. *Range.*—Terraces on southern side of Grand Canyon, in Hualpai Indian Reservation. Zonal range, Upper Sonoran.

Citellus leucurus cinnamomeus (Merriam) †*

1890. *Tamias leucurus cinnamomeus* Merriam, North Amer. Fauna No. 3, p. 52, Sept. 11, 1890.

1905. *Citellus leucurus cinnamomeus* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 299, Dec. 6, 1905.

Type Locality.—Echo Cliffs, Painted Desert, Coconino County, Ariz. *Range.*—Northeastern Arizona; Kane, Garfield, Grand, and San Juan Counties in southern and eastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 32, Feb. 15, 1951); and southeastern Colorado; north to Coventry, Colo.; south to Taylor, Ariz. Zonal range, mainly Upper Sonoran.

Citellus leucurus pennipes (A. H. Howell) †*

1931. *Ammospermophilus leucurus pennipes* A. H. Howell, Journ. Mamm., vol. 12, No. 2, p. 162, May 14, 1931.

1938. *Citellus leucurus pennipes* A. H. Howell, North Amer. Fauna No. 56 (April), p. 175, May 18, 1938.

Type Locality.—Grand Junction, Mesa County, Colo. *Range.*—The Colorado Valley and its tributaries (except San Juan) in western Colorado, eastern Utah (see Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 32, Feb. 15, 1951), and northwestern New Mexiso; north to Vernal, Uintah County, Utah, and Rangely, Rio Blanco County, Colo.; west to Thurber, Wayne County, Utah; south to Socorro Mountains, N. Mex. Zonal range, Upper Sonoran.

Citellus leucurus peninsulae (J. A. Allen) *

1893. *Tamias leucurus peninsulae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 197, Aug. 18, 1893.

1903. *Citellus leucurus peninsulae* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, No. 12 (June), p. 211, Aug. 15, 1903.

Type Locality.—San Telmo, Baja California, México. *Range.*—Western side of Baja California Peninsula; east to base of Sierra San Pedro Mártir; south to San Fernando. Zonal range, Upper Sonoran.

Citellus leucurus canfieldae (Huey) *

1929. *Ammospermophilus leucurus canfieldae* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 15, p. 243, Feb. 27, 1929.

1938. *Citellus leucurus canfieldae* A. H. Howell, North Amer. Fauna No. 56 (April), p. 178, May 18, 1938.

Type Locality.—Punta Prieta, lat. 28°56′ N., long. 114°12′ W., Baja California, México. *Range.*—Desert region of central Baja California, from about lat. 30° N. southward over Vizcaíno Desert to about lat. 28° N. Zonal range, Lower Sonoran.

Citellus leucurus extimus (Nelson and Goldman) †*

1929. *Ammospermophilus leucurus extimus* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 19, No. 13, p. 281, July 19, 1929.

1938. *Citellus leucurus extimus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 179, May 18, 1938.

Type Locality.—Saccaton (15 miles north of Cape San Lucas), Baja California, México. *Range.*—Southern part of Baja California Peninsula from Cape San Lucas north to about lat. 28° N. (except the Vizcaíno Desert); ranging from sea level to about 1,000 feet altitude on slopes of mountains. Zonal range, Lower Sonoran and Tropical.

Citellus interpres (Merriam) †*

1890. *Tamias interpres* Merriam, North Amer. Fauna No. 4, p. 21, Oct. 8, 1890.

1904. [*Citellus*] *interpres* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 143, Aug. 2, 1904.

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Western Texas and south-central New Mexico, north to Manzano Mountains; east to Pecos River

Valley and Castle Mountains, Tex.; west to eastern side of Río Grande Valley, in New Mexico; south to Jaral, Coahuila. Zonal range, Lower Sonoran.

Citellus insularis (Nelson and Goldman) †*

1909. *Ammospermophilus leucurus insularis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 24, Mar. 10, 1909.

1938. *Citellus insularis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 181, May 18, 1938.

Type Locality.—Espíritu Santo Island, Gulf of California, Baja California, México. *Range.*—Espíritu Santo Island. Zonal range, Tropical.

Citellus nelsoni (Merriam) †*

1893. *Spermophilus nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 129, Dec. 28, 1893.

1904. *Citellus nelsoni* Elliot, Field Columb. Mus. Publ. 91, Zool. Ser., vol. 3, No. 16 (March), p. 290, Apr. 4, 1904.

1916. *Ammospermophilus nelsoni amplus* Taylor, Univ. California Publ. Zool., vol. 17, No. 4, p. 15, Oct. 3, 1916. (Twenty miles south of Los Banos, Merced County, Calif. = near mouth of Little Panoche Creek, western Fresno County; see Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 127, Sept. 26, 1933.)

Type Locality.—Tipton, San Joaquin Valley, Tulare County, Calif. *Range.*—San Joaquin Valley, Calif., from Los Banos south to Fort Tejon; west to Carrizo Plain and Cuyama Valley. Zonal range, Lower Sonoran.

Subgenus XEROSPERMOPHILUS Merriam

1892. *Xerospermophilus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 27, Apr. 13, 1892. (Type, *Spermophilus mohavensis* Merriam.)

Citellus mohavensis (Merriam) †*

1889. *Spermophilus mohavensis* Merriam, North Amer. Fauna No. 2, p. 15, Oct. 30, 1889.

1904. [*Citellus*] *mohavensis* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 341.

Type Locality.—Mohave River, San Bernardino County, Calif.; more exactly near Rabbit Springs, about 15 miles east of Mohave River at [opposite] Hesperia, San Bernardino County (Grinnell and Dixon, Monthly Bull. California Comm. Hort., vol. 7 (1918), p. 667, Jan. 27, 1919). *Range.*—Mohave Desert, Calif., west to Palmdale, Los Angeles County; north to Haiwee Meadows, Inyo County; south to Rabbit Springs, San Bernardino County. Zonal range, Lower Sonoran.

Citellus tereticaudus tereticaudus (Baird) †*

1858. *Spermophilus tereticaudus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 315, July 14, 1858.

1884. *Spermophilus tereticaudus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 594, Nov. 29, 1884.

1904. *C*[*itellus*] *tereticaudus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 242, Jan. 7, 1904.

1904. *Citellus eremonomus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 243, Jan. 7, 1904. (Furnace Creek, Death Valley, Inyo County, Calif.)

1926. *Citellus tereticaudus vociferans* Huey, Proc. Biol. Soc. Washington, vol. 39, p. 29, July 30, 1926. (San Felipe, Baja California, México.)

Type Locality.—Old Fort Yuma, Imperial County, Calif., on right bank of the Colorado River, opposite present town of Yuma, Ariz. *Range.*—Deserts of southern California and northwestern Baja California; north to Death Valley, Inyo County, Calif., to Clark and southern Nye Counties, Nev. (Hall, Mammals of Nevada, p. 318, July 1, 1946), and to extreme northwestern Arizona; south to San Felipe Bay, Baja California; west to Kramer on Mohave Desert, San Bernardino County, and to La Puerta, San Diego County, on Colorado Desert. Zonal range, Lower Sonoran.

Citellus tereticaudus neglectus (Merriam) †*

1889. *Spermophilus neglectus* Merriam, North Amer. Fauna No. 2, p. 17, Oct. 30, 1889.

1891. *Spermophilus sonoriensis* Ward, Amer. Nat., vol. 25, p. 158, February 1891. (Hermosillo, Sonora, México.)

1918. *Citellus tereticaudus arizonae* Grinnell, Proc. Biol. Soc. Washington, vol. 31, p. 105, Nov. 29, 1918. (Tempe, Maricopa County, Ariz.)

1938. *Citellus tereticaudus neglectus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 187, May 18, 1938.

Type Locality.—Dolans Spring, 12 miles northwest of Chloride, Mohave County, Ariz. *Range.*—Western Arizona and western Sonora; north to Detrital Valley, Mohave County, Ariz.; east to Mountain Spring, Pima County; south to Camoa, Río Mayo, Sonora; west to Colorado River and Gulf of California. Zonal range, Lower Sonoran.

Citellus tereticaudus chlorus Elliot*

1904. *Citellus chlorus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 242, Jan. 7, 1904.

1913. *Citellus tereticaudus chlorus* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 347, Aug. 28, 1913.

Type Locality.—Palm Springs, Riverside County, Calif. *Range.*—Northwestern arm of Colorado Desert, specifically, Coachella Valley from Mecca northwest to Cabazon. Zonal range, Lower Sonoran.

Citellus tereticaudus apricus Huey*

1927. *Citellus tereticaudus apricus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 7, p. 85, Oct. 10, 1927.

Type Locality.—Valle de la Trinidad, lat. 31°20′ N., long. 115°40′ W., Baja California, México. *Range.*—Known from type locality only.

Subgenus CALLOSPERMOPHILUS Merriam

1897. *Callospermophilus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 189, July 1, 1897. (Type, *Sciurus lateralis* Say.)

Citellus lateralis lateralis (Say)*

1823. *S*[*ciurus*] *lateralis* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 2, p. 46.

1884. *Tamias lateralis* True, Proc. U. S. Nat. Mus. vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1905. *Citellus (Callospermophilus) lateralis* J. A. Allen, Mus. Brooklyn Inst. Sci. Bull., vol. 1, p. 119.

Type Locality.—On the Arkansas River, about 26 miles below Canyon City, in Pueblo County, Colo. (See Merriam, Proc. Biol. Soc. Washington, vol. 18, p. 163, June 29, 1905.) *Range.*—South-central Wyoming; central and western Colorado; Uinta Mountains, Tavaputs Plateau and high plateaus of central and northeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 35, Feb. 15, 1951); northern Arizona and northern New Mexico; north to southern Fremont County, Wyoming; east to foothills of Rocky Mountains in Colorado and New Mexico; south to San Miguel County, N. Mex. (upper Pecos River); west to Kaibab Plateau, Ariz. Zonal range, Transition, Canadian, and Hudsonian.

Citellus lateralis wortmani (J. A. Allen) *

1895. *Tamias wortmani* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 335, Nov. 8, 1895.

1938. *Citellus lateralis wortmani* A. H. Howell, North Amer. Fauna No. 56 (April), p. 195, May 18, 1938.

Type Locality.—Kinney Ranch, Bitter Creek, Sweetwater County, Wyo. *Range.*—Deserts and badlands in south-central Wyoming and northwestern Colorado; north to Steamboat Mountain, Sweetwater County, Wyo.; south to Bear River Valley, Routt County, Colo. Zonal range, Upper Sonoran.

Citellus lateralis arizonensis (V. Bailey) †*

1913. *Callospermophilus lateralis arizonensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 130, May 21, 1913.

1917. *Citellus lateralis arizonensis* Elliot, A check list of mammals of the North American continent, the West Indies and the neighboring seas, Suppl., Publ. Amer. Mus. Nat. Hist., p. 30, Mar. 27, 1917.

Type Locality.—Near Little Spring, San Francisco Mountain, Coconino County, Ariz. Altitude, 8,250 feet. *Range.*—Mountains and high plateaus in central and eastern Arizona and west-central New Mexico; north to San Francisco Mountain, Ariz.; east and south to Mimbres Mountains, N. Mex. Zonal range, Transition and Canadian.

Citellus lateralis caryi (A. H. Howell) †*

1917. *Callospermophilus lateralis caryi* A. H. Howell, Proc. Biol. Soc. Washington, vol. 30, p. 105, May 23, 1917.

1938. *Citellus lateralis caryi* A. H. Howell, North Amer. Fauna No. 56 (April), p. 197, May 18, 1938.

Type Locality.—Seven miles south of Fremont Peak, Wind River Mountains, Fremont County, Wyo. Altitude, 10,400 feet. *Range.*—Wind River Mountains, Wyo., and parts of Gros Ventre Range; north (apparently) to Wildcat Ridge, south of Yellowstone Park. Zonal range, Canadian and Hudsonian.

Citellus lateralis cinerascens (Merriam) †*

1890. *Tamias cinerascens* Merriam, North Amer. Fauna No. 4, p. 20, Oct. 8, 1890.

1938. *Citellus lateralis cinerascens* A. H. Howell, North Amer. Fauna No. 56 (April), p. 198, May 18, 1938.

Type Locality.—Helena, Lewis and Clark County, Mont. Altitude, 4,500 feet. *Range.*—Outlying ranges in south-central Montana and northwestern Wyoming, from Helena south to Yellowstone Park and east to Beartooth Mountains. Zonal range, Canadian and Hudsonian.

Citellus lateralis tescorum (Hollister)†*

1911. *Callospermophilus lateralis tescorum* Hollister, Smithsonian Misc. Coll., vol. 56, No. 26, p. 2, Dec. 5, 1911.

1917. *Citellus lateralis tescorum* Elliot, A check list of mammals of the North American continent, the West Indies and the neighboring seas, Suppl., Publ. Amer. Mus. Nat. Hist., p. 29, Mar. 27, 1917.

Type Locality.—Head of Moose Pass branch of the Smoky River, Alberta, Canada (near Moose Pass, British Columbia). Altitude, 7,000 feet. *Range.*—Northern Rocky Mountain region in western Alberta, Waterton Lakes, Banff and Jasper National Parks, north to Wapiti River,; eastern British Columbia; west to Columbia River Valley, southeastern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 112, Jan. 24, 1947); northern and central Idaho, and western Montana; north to Mount Selwin, British Columbia; south to Snake River Plains, Idaho (Davis, The Recent mammals of Idaho, pp. 163, 197, Apr. 5, 1939). Zonal range, Canadian and Hudsonian.

Citellus lateralis castanurus (Merriam)†*

1890. *Tamias castanurus* Merriam, North Amer. Fauna No. 4, p. 19, Oct. 8, 1890.

1938. *Citellus lateralis castanurus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 201, May 18, 1938.

Type Locality.—Park City, Wasatch Mountains, Summit County, Utah. Altitude, 7,000 feet. *Range.*—Mountains of extreme western Wyoming, southeastern Idaho, and north-central Utah; north to Teton Range, Wyo.; east to Gros Ventre and Salt River Ranges, Wyo.; Wasatch Mountains south to Mount Nebo, Juab County, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 35, Feb. 15, 1951); west to mountains east of Inkom, Idaho. Zonal range, Canadian and Hudsonian.

Citellus lateralis chrysodeirus (Merriam)†*

1890. *Tamias chrysodeirus* Merriam, North Amer. Fauna No. 4, p. 19, Oct. 8, 1890.

1938. *Citellus lateralis chrysodeirus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 203, May 18, 1938.

Type Locality.—Fort Klamath [mountains near], Klamath County, Oreg. *Range.*—Interior Oregon and eastern California north to Columbia River; east to foothills of Blue Mountains; south (in the Sierra Nevada) to Tulare County, Calif.; Sierra Nevada in vicinity of Lake Tahoe, west to and including Cascades in Oregon and Mount Shasta in California. Zonal range, Transition, Canadian, and Hudsonian.

Citellus lateralis connectens (A. H. Howell)†*

1931. *Callospermophilus chrysodeirus connectens* A. H. Howell, Journ. Mamm., vol. 12, No. 2, p. 161, May 14, 1931.

1938. *Citellus lateralis connectens* A. H. Howell, North Amer. Fauna No. 56 (April), p. 205, May 18, 1938.

Type Locality.—Homestead, Baker County, Oreg. *Range.*—The Blue Mountains region of northeastern Oregon and southeastern Washington. Zonal range, Transition and Canadian.

Citellus lateralis trepidus (Taylor)*

1910. *Callospermophilus trepidus* Taylor, Univ. California Publ. Zool., vol. 5, No. 6, p. 283, Feb. 12, 1910.

1918. *Callospermophilus chrysodeirus perpallidus* Grinnell, Univ. California Publ. Zool., vol. 17, No. 14, p. 429, Apr. 25, 1918. (Near Big Prospector Meadow, White Mountains, Mono County, Calif. Altitude, 10,300 feet.)

1938. *Citellus lateralis trepidus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 206, May 18, 1938.

Type Locality.—Head of Big Creek, Pine Forest Mountains, Humboldt County, Nev. Altitude, 8,000 feet. *Range.*—Southeastern Oregon, southern Idaho, northern and central Nevada, and northwestern Utah; north in the Snake River Valley to southern Baker County, Oreg. (Home P. O.); west to Mount Warner, Oreg., and Granite Range, Nevada; south to lat. 38° N. in Nevada, and to White and Inyo Mountains, Calif.; east to Bannock County, Idaho (Swan Lake) and the Snake Range, eastern Nevada. Zonal range, Upper Sonoran, Transition, and Canadian.

Citellus lateralis certus (Goldman)†*

1921. *Callospermophilus lateralis certus* Goldman, Journ. Mamm., vol. 2, No. 4, p. 232, Nov. 29, 1921.

1938. *Citellus lateralis certus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 208, May 18, 1938.

Type Locality.—North base of Charleston Peak, Charleston Mountains, Clark County, Nev. *Range.*—Spring Mountains, Clark County, Nev. Zonal range. Transition.

Citellus lateralis bernardinus (Merriam)†*

1893. *Spermophilus chrysodeirus brevicaudus* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 134, Dec. 28, 1893. (Not *Spermophilus brevicauda* Brandt, 1844.)

1898. *Spermophilus* (*Callospermophilus*) *bernardinus* Merriam, Science, new ser., vol. 8, p. 782, Dec. 2, 1898. (Substitute for *brevicaudus* Merriam.)

1938. *Citellus lateralis bernardinus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 209, May 18, 1938.

Type Locality.—San Bernardino Peak, San Bernardino County, Calif. *Range.*—San Bernardino Mountains, Calif. Vertical range, 6,700 feet (at Bear Lake) to 11,485 feet (on summit of San Gorgonio Peak); zonal range, Canadian and Hudsonian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 125, Sept. 26, 1933).

Citellus lateralis mitratus (A. H. Howell)†*

1931. *Callospermophilus chrysodeirus mitratus* A. H. Howell, Journ. Mamm., vol. 12, No. 2, p. 161, May 14, 1931.

1938. *Citellus lateralis mitratus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 210, May 18, 1938.

Type Locality.—South Yolla Bolly Mountain, Tehama County, Calif. *Range.*—Coast ranges of northern California, from Glenn County north to southern Siskiyou County. Zonal range, Canadian and Transition.

Citellus lateralis trinitatis (Merriam) †*

1901. *Callospermophilus chrysodeirus trinitatis* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 126, July 19, 1901.

1938. *Citellus lateralis trinitatis* A. H. Howell, North Amer. Fauna No. 56 (April), p. 211, May 18, 1938.

Type Locality.—Trinity Mountains, east of Hoopa Valley, Humboldt County, Calif. Altitude, 5,700 feet. *Range.*—Trinity Mountains in northern Humboldt County, north through Siskiyou Mountains to southwestern Oregon. Zonal range, Canadian and Transition.

Citellus saturatus (Rhoads) *

1895. *Tamias lateralis saturatus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 43, Apr. 9, 1895.

1938. *Citellus saturatus* A. H. Howell, North Amer. Fauna No. 56 (April), p. 212, May 18, 1938.

Type Locality.—Lake Keechelus, Kittitas County, Wash. Altitude, 8,000 feet. *Range.*—The Cascade Mountain region of western Washington and southern British Columbia; north to Tulameen, British Columbia; south to Columbia River Valley, southern Washington; east to Similkameen River, British Columbia. Zonal range, Canadian.

Citellus madrensis (Merriam) †*

1901. *Callospermophilus madrensis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 563, Nov. 29, 1901.

1904. [*Citellus*] *madrensis* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 147, Aug. 2, 1904.

Type Locality.—Sierra Madre, near Guadalupe y Calvo, Chihuahua, México. Altitude, 7,000 feet. *Range.*—Sierra Madre, México, from northwestern Durango north to lat. 27° N., west to Batopilas, Chihuahua; limits of range not known. Zonal range, Transition.

Genus TAMIAS[72] **Illiger (eastern chipmunks)**

1811. *Tamias* Illiger, Prodromus systematis Mammalium et Avium, p. 83. (Type, *Sciurus striatus* Linnaeus.)

Tamias striatus striatus (Linnaeus) *

1758. [*Sciurus*] *striatus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 64.

1857. *Tamias striatus* Baird, Ann. Rep. Smithsonian Inst., 1856, p. 55, footnote, 1857.

1884. *Tamias striatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884. (Part.)

Type Locality.—Upper Savannah River, S. C. (designated by A. H. Howell, North Amer. Fauna No. 52, p. 14, Nov. 30, 1929). *Range.*—Southeastern

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[72] Revised by A. H. Howell, North Amer. Fauna No. 52, pp. 11–23, Nov. 30, 1929.

United States, from southwestern Virginia (Hooper and Cady, Journ. Mamm., vol. 22, No. 3, p. 324, Aug. 14, 1941), highlands of North Carolina, South Carolina, Georgia (south to Talbot County; Hall, Amer. Midl. Nat. vol. 21, p. 766, May 1939), and northeastern Alabama west to Mississippi River in Kentucky and Tennessee; north to Breathitt (Hamilton, Journ. Mamm., vol. 11, No. 3, p. 310, Aug. 9, 1930) and Fulton (Hickman) Counties, Ky. Reported to occur also in Randolph County, Ga. (Harper, Journ. Mamm., vol. 10, No. 1, p. 84, Feb. 11, 1929).

Tamias striatus pipilans Lowery*

1943. *Tamias striatus pipilans* Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ No. 13, p. 235, Nov. 22, 1943.

Type Locality.—Five miles south of Tunica, West Feliciana Parish, La. *Range.*—Central-southern Louisiana (West Feliciana and Baton Rouge Parishes only), northward through central and western Mississippi, eastward to central northern Alabama.

Tamias striatus venustus Bangs

1896. *Tamias striatus venustus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 137, Dec. 28, 1896.

Type Locality.—Stilwell, Adair County, Okla. *Range.*—Eastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, p. 112, July 1939), northwestern Arkansas, southern Missouri (Ozark Plateau, east to Oregon County; Leopold and Hall, Journ. Mamm., vol. 26, No. 2, p. 144, July 19, 1945), and Cherokee and Montgomery Counties in southeastern Kansas (Black, Kansas State Board Agric. Thirtieth Biennial Rept., 1935–1936, p. 178, 1937).

Tamias striatus griseus Mearns*

1891. *Tamias striatus griseus* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 231, June 5, 1891.

Type Locality.—Fort Snelling, Hennepin County, Minn. *Range.*—Upper Mississippi Valley region, north of southeastern Missouri, northeastern Kansas (Franklin County; Hall, Amer. Midl. Nat., vol. 21, p. 766, May 1939), southeastern Nebraska (Sarpy County; Velich, Journ. Mamm., vol. 28, No. 2, p. 185, May 19, 1947), Iowa, and southern Illinois through Wisconsin, Minnesota and eastern North Dakota; Upper Peninsula of Michigan (Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 5, Nov. 10, 1943); and in Canada from southwestern Manitoba eastward through western and northern Ontario north of Lake Superior to south end of James Bay (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 113, Jan. 24, 1947).

Tamias striatus ohionensis Bole and Moulthrop*

1942. *Tamias striatus ohionensis* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 135, Sept. 11, 1942.

Type Locality.—Cincinnati, Hamilton County, Ohio. *Range.*—From northern and central Indiana to northeastern Kentucky (Bath County) and middle Ohio, east in last mentioned state at least as far as Adams, Hocking and Seneca Counties. Recorded also from Obion County, northwestern Tennessee (Goodpaster and Hoffmeister, Journ. Mamm., vol. 33, No. 3, p. 366, Aug. 19, 1952).

Tamias striatus rufescens Bole and Moulthrop*

1942. *Tamias striatus rufescens* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 130, Sept. 11, 1942.

Type Locality.—Chesterfield Caves, Chester Township, Geauga County, Ohio. *Range.*—The Allegheny plateau of northeastern Ohio at least as far south as Columbia County, also east to Crawford County, Pa. Specimens from lower half of Lower Peninsula of Michigan referred to *rufescens* by Burt (Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 5, Nov. 10, 1943).

Tamias striatus peninsulae Hooper*

1942. *Tamias striatus peninsulae* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan, No. 461, p. 1, Sept. 15, 1942.

Type Locality.—Three miles southeast of Millersburg, Barnhart Lake, Presque Isle County, Mich. *Range.*—Northern half of Lower Peninsula of Michigan, from Muskegon and northern Montcalm Counties northward to Straits of Mackinac. Distribution limits essentially those of the sandy "jackpine," or high plains, region of Michigan.

Tamias striatus quebecensis Cameron

1950. *Tamias striatus quebecensis* Cameron, Journ. Mamm., vol. 31, No. 3, p. 347, Aug. 21, 1950.

Type Locality.—St. Félicien, Lake St. John County, Quebec, Canada. *Range.*—From Moisie Bay (long. 66° W.), north shore of Gulf of St. Lawrence, Lake St. John and Lake Mistassini in Quebec west to Kapuskasing (long. 83° W.), Ontario; intergrading with *lysteri* in southern Quebec and northeast of Lake Superior, and with *rufescens* in southwestern Ontario.

Tamias striatus lysteri (Richardson)*

1829. *Sciurus* (*Tamias*) *lysteri* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 181, June 1829.

1886. *Tamias striatus lysteri* Merriam, Amer. Nat., vol. 20, p. 242, March 1886.

Type Locality.—Penetanguishene, Georgian Bay, Ontario, Canada. *Range.*—From central Ontario near northeastern end of Lake Superior eastward through Quebec south of St. Lawrence River (including Gaspé Peninsula), New Brunswick, Prince Edward Island and Nova Scotia to Cape Breton Island; southward through New England and New York (except southeastern part) and in higher Alleghenies to northwestern Maryland.

Tamias striatus fisheri A. H. Howell†*

1925. *Tamias striatus fisheri* A. H. Howell, Journ. Mamm., vol. 6, No. 1, p. 51, Feb. 9, 1925.

Type Locality.—Merritts Corners, 4 miles east of Ossining (Sing Sing), Westchester County, N. Y. *Range.*—Middle Atlantic States, from lower Hudson River Valley, N. Y., south to Virginia and West Virginia.

Genus EUTAMIAS[73] Trouessart

1880. *Eutamias* Trouessart, Bull. Soc. d'Études Sci. d'Angers, vol. 10, fasc. 1, p. 86. (Type, *Sciurus striatus asiaticus* Gmelin.)

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[73] Regarded as a subgenus of *Tamias* by Ellerman, The families and genera of living rodents, vol. 1, pp. 426–430, June 8, 1940; and by Bryant, Amer. Midl. Nat., vol. 33, No. 2, pp. 372, 386, March 1945.

Subgenus NEOTAMIAS[74] A. H. Howell (western chipmunks)

1929. *Neotamias* A. H. Howell, North Amer. Fauna No. 52, p. 26, Nov. 30, 1929. (Type, *Eutamias merriami* (J. A. Allen).)

alpinus—group

Eutamias alpinus (Merriam) †*

1893. *Tamias alpinus* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 137, Dec. 28, 1893.

1897. *Eutamias alpinus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 191, July 1, 1897.

Type Locality.—Big Cottonwood Meadows, just south of Mount Whitney, Sierra Nevada, Inyo County, Calif. Altitude, 10,000 feet. *Range.*—Highest parts of crest and principal western spurs of Sierra Nevada, in central California, from Mount Conness, Tuolumne County, south to Olancha Peak. Westernmost records of occurrence are Mount Hoffmann, Mount Clark, Horse Corral Meadows, and Mineralking; easternmost records are Warren Fork of Leevining Creek, Mono Pass, Onion Valley, and Little Cottonwood Creek; zonal range, Hudsonian and Arctic-Alpine; locally Canadian (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 73, Dec. 24, 1943).

minimus—group

Eutamias minimus minimus (Bachman) *

1839. *Tamias minimus* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 1, p. 71.

1884. *Tamias asiaticus pallidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884. (Part.)

1901. *Eutamias minimus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 42, Dec. 27, 1901.

1929. *Eutamias minimus minimus* A. H. Howell, North Amer. Fauna No. 52, p. 29, Nov. 30, 1929.

Type Locality.—Near Green River City, Sweetwater County, Wyo. (See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 112, June 1890.) *Range.*—Central and southwestern Wyoming and extreme northwestern Colorado. Recorded also at Linwood on Henry's Fork, Daggett County, northeastern Utah; zonal range, Upper Sonoran; vertical range, 5,800 to 8,500 feet altitude (Svihla, Journ. Mamm., vol. 12, No. 3, p. 260, Aug. 24, 1931).

Eutamias minimus silvaticus White*

1952. *Eutamias minimus silvaticus* White, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 19, p. 261, Apr. 10, 1952.

Type Locality.—Three miles northwest of Sundance, Crook County, Wyo. Altitude, 5,900 feet. *Range.*—Bear Lodge Mountains in northeastern Wyoming and Black Hills of South Dakota.

Eutamias minimus pictus (J. A. Allen) †*

1890. *Tamias minimus pictus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 115, June 1890.

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[74] Revised by A. H. Howell, North Amer. Fauna No. 52, pp. 26–153, Nov. 30, 1929. California races of *Eutamias* (*Neotamias*) reviewed by Johnson, Univ. California Publ. Zool., vol. 48, No. 2, pp. 63–148, Dec. 24, 1943.

1890. *Tamias minimus melanurus* Merriam†, North Amer. Fauna No. 4, p. 22, Oct. 8, 1890. (West side of Snake River, near Blackfoot, Bingham County, Idaho. Regarded as a synonym of *pictus* by A. H. Howell, North Amer. Fauna No. 52, p. 39, Nov. 30, 1929; as a synonym of *consobrinus* by Hall and Hatfield, Univ. California Publ. Zool., vol. 40, No. 6, p. 323, Feb. 12, 1934; and as a synonym of *pictus* by Davis, The Recent mammals of Idaho, p. 210, Apr. 5, 1939.)

1901. *Eutamias minimus pictus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 42, Dec. 27, 1901.

Type Locality.—Kelton, Box Elder County, Utah. *Range.*—Dry lower portions of Quaternary Lake Bonneville Basin, Utah, westward to Pine Canyon, 6,600 feet altitude, Box Elder County (Hall and Hatfield, loc. cit.); and in Idaho, north of Snake River north to Lemhi and Pahsimeroi Valleys and west along north side of Snake River at least to Nampa, Canyon County (Davis, The Recent mammals of Idaho, p. 210, Apr. 5, 1939).

Eutamias minimus scrutator Hall and Hatfield*

1934. *Eutamias minimus scrutator* Hall and Hatfield, Univ. California Publ. Zool. vol. 40, No. 6, p. 321, Feb. 12, 1934.

Type Locality.—Near Blanco Mountain, White Mountains, Mono County, Calif. Altitude, 10,500 feet. *Range.*—Southwestern Idaho, south of Snake River and east to about Twin Falls (Davis, The Recent mammals of Idaho, p. 213, Apr. 5, 1939); Nevada, except southern part (Hall, Mammals of Nevada, p. 329, July 1, 1946); and eastern and central Oregon; north to central Washington; west to Klamath Lake, Oregon; northeastern and central eastern parts of California, except near Lake Tahoe, and mainly east of Cascade-Sierran Divide, south to southeastern Tulare County (Chimney Meadow) and Mazourka Canyon, Inyo Mountains, and west to Mount Hebron, Siskiyou County; zonal range, Upper Sonoran; vertical range, 2,000 feet (Yakima County, Wash.) to 10,500 feet (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 79, Dec. 24, 1943).

Eutamias minimus grisescens A. H. Howell†*

1925. *Eutamias minimus grisescens* A. H. Howell, Journ. Mamm., vol. 6, No. 1, p. 52, Feb. 9, 1925.

Type Locality.—Farmer, Douglas County, Wash. *Range.*—Coulee region of eastern Washington, east of Columbia River; south to Pasco.

Eutamias minimus caryi Merriam†*

1908. *Eutamias minimus caryi* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 143, June 9, 1908.

Type Locality.—Medano Ranch, 15 miles northeast of Mosca, San Luis Valley, Alamosa County, Colo. *Range.*—San Luis Valley; limits of range unknown. Zonal range, Upper Sonoran.

Eutamias minimus pallidus (J. A. Allen)†*

1874. *Tamias quadrivitatus* var. *pallidus* J. A. Allen, Proc. Boston Soc. Nat. Hist., vol. 16, p. 289.

1922. *Eutamias minimus pallidus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 183, Aug. 4, 1922.

Type Locality.—Camp Thorne, near present town of Glendive, Yellowstone River, Dawson County, Mont. *Range.*—Plains region of eastern Montana, northern and eastern Wyoming, western North Dakota, western South Dakota, and extreme northwestern Nebraska; north to Missouri River in Montana; east to Missouri River in North Dakota; south to valley of North Platte in eastern Wyoming and to Wind River Basin in western Wyoming; west to Meagher and Sweet Grass Counties, Mont., and to foothills of Wind River Mountains, Wyo. Zonal range, Upper Sonoran and Lower Transition; vertical range, 4,500 to 7,500 feet altitude.

Eutamias minimus cacodemus Cary†*

1906. *Eutamias pallidus cacodemus* Cary, Proc. Biol. Soc. Washington, vol. 19, p. 89, June 4, 1906.

1922. *Eutamias minimus cacodemus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 183, Aug. 4, 1922.

Type Locality.—Sheep Mountain, Big Bad Lands, Fall River County, S. Dak. *Range.*—Badlands of Cheyenne River in southwestern South Dakota. Zonal range, Upper Sonoran.

Eutamias minimus confinis A. H. Howell†*

1925. *Eutamias minimus confinis* A. H. Howell, Journ. Mamm., vol. 6, No. 1, p. 52, Feb. 9, 1925.

Type Locality.—Head of Trapper Creek, west slope of Bighorn Mountains, Bighorn County, Wyo. Altitude, 8,500 feet. *Range.*—Upper slopes of Bighorn Mountains (7,000 to 10,500 feet).

Eutamias minimus consobrinus (J. A. Allen)†*

1890. *Tamias minimus consobrinus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 112, June 1890.

1901. *Eutamias minimus consobrinus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 42, Dec. 27, 1901.

1905. *Eutamias lectus* J. A. Allen, Mus. Brooklyn Inst. Sci. Bull., vol. 1, p. 117, Mar. 31, 1905. (Beaver Valley, Beaver County, Utah.)

1918. *Eutamias consobrinus clarus* V. Bailey†, Proc. Biol. Soc. Washington, vol. 31, p. 31, May 16, 1918. (Swan Lake Valley, Yellowstone National Park, Wyo.)

Type Locality.—Parleys Canyon, Wasatch Mountains, near former site of Barclay, Salt Lake County, Utah. *Range.*—North-central Arizona (Kaibab Plateau) north through southwestern (Long, Journ. Mamm., vol. 21, No. 2, p. 175, May 16, 1940) and central Utah to northeastern and northern Utah (Stanford, Journ. Mamm., vol. 12, No. 4, p. 359, Nov. 11, 1931); northwestern Colorado, east to Grand and Gunnison Counties and south to Sapinero; south-central and northwestern Wyoming, east to Wind River Mountains; mountainous areas in extreme southeastern Idaho north of Bear Lake County (Davis, The Recent mammals of Idaho, p. 213, Apr. 5, 1939); and Beartooth Mountains, southern Montana. Zonal range, Transition and Canadian; vertical range, 6,200 feet (Meeker, Colo.) to 11,800 feet (La Sal Mountains, Utah).

Eutamias minimus operarius Merriam†*

1905. *Eutamias amoenus operarius* Merriam, Proc. Biol. Soc. Washington, vol. 18, p. 164, June 29, 1905.

1922. *Eutamias minimus operarius* A. H. Howell, Journ. Mamm., vol. 3, No.3, p. 183, Aug. 4, 1922.

Type Locality.—Gold Hill, Boulder County, Colo. Altitude, 7,400 feet. *Range.*—Mountains of southern and eastern Colorado, northern New Mexico, and southeastern Wyoming; north to Laramie and Casper Mountains, Wyo.; south to Pecos River and Gallinas Mountains, N. Mex.; and southeastern Utah south of Green and Colorado rivers (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 38, Feb. 15, 1951). Zonal range, Transition and Canadian; vertical range, 6,500 to 13,300 feet altitude.

Eutamias minimus atristriatus V. Bailey†*

1913. *Eutamias atristriatus* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 129, May 21, 1913.

1922. *Eutamias minimus atristriatus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 178, Aug. 4, 1922.

Type Locality.—Penasco Creek, Sacramento Mountains, 12 miles east of Cloudcroft, Otero County, N. Mex. *Range.*—Sacramento Mountains, southern New Mexico. Zonal range, Transition; vertical range, 7,000 to 8,000 feet altitude.

Eutamias minimus arizonensis A. H. Howell†*

1922. *Eutamias minimus arizonensis* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 178, Aug. 4, 1922.

Type Locality.—Prieto Plateau, at south end of Blue Range, Greenlee County, Ariz. *Range.*—White Mountains and Prieto Plateau, eastern Arizona. Zonal range, Canadian; vertical range, 8,000 to 11,280 feet altitude.

Eutamias minimus oreocetes Merriam†*

1897. *Eutamias oreocetes* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 207, July 1, 1897.

1922. *Eutamias minimus oreocetes* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 183, Aug. 4, 1922.

Type Locality.—Summit Mountain, north of Summit Station (on Great Northern Railroad), Flathead County, Mont. *Range.*—Along timberline and alpine meadows of Continental Divide of Rocky Mountains from Glacier National Park in northern Montana, Waterton Lakes National Park in southwestern Alberta, and some outlying mountains (Mount Forgetmenot) in southwestern Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 115, Jan. 24, 1947). (For discussion of extralimital records, see Crow, Bull. Amer. Mus. Nat. Hist., vol. 80, p. 399, Feb. 4, 1943; Anderson and Rand, Canadian Field-Nat., vol. 57, p. 133, Jan. 24, 1944; and Cowan, Proc. Biol. Soc. Washington, vol. 59, pp. 112–113, Oct. 25, 1946.) Zonal Range, Hudsonian.

Eutamias minimus selkirki Cowan

1946. *Eutamias minimus selkirki* Cowan, Proc. Biol. Soc. Washington, vol. 59, p. 113, Oct. 25, 1946.

Type Locality.—Paradise Mine, near Toby Creek, 19 miles west of Invermere, Purcell range, southeastern British Columbia, Canada. *Range.*—Known from vicinity of type locality only.

Eutamias minimus borealis (J. A. Allen)*

1877. [*Tamias asiaticus*] var. *borealis* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 793, August 1877.

1884. *Tamias asiaticus borealis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1929. *Eutamias minimus borealis* A. H. Howell, North Amer. Fauna No. 52, p. 29, Nov. 30, 1929.

Type Locality.—Fort Liard, Mackenzie District, Northwest Territories, Canada (see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 109, June 1890). *Range.*—Interior Canada, from southern Mackenzie (Fort Simpson and Great Slave Lake) south over northeastern British Columbia to Banff and Eagle Butte, Alberta, southern Saskatchewan, southeastern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 114, Jan. 24, 1947) and northern North Dakota (Turtle Mountains); west to Tatlatui Lake at head of Finlay branch of Peace River and Babine Mountains, northern British Columbia; also isolated colonies in Black Hills of South Dakota, Bear Lodge Mountains of Wyoming and the Big Snowy, Bear Paw, and other ranges in central Montana. Zonal range, Canadian and Transition (Black Hills, S. Dak.).

Eutamias minimus hudsonius Anderson and Rand*

1944. *Eutamias minimus hudsonius* Anderson and Rand, Canadian Field-Nat., vol. 57, No. 7–8 (October-November, 1943), p. 133, Jan. 24, 1944.

Type Locality.—Bird (Mile 349), Hudson Bay Railway, northern Manitoba, Canada. *Range.*—Northern Manitoba, intergrading with *borealis* in vicinity of The Pas, in western Manitoba. Probably occurs in extreme northwestern Ontario and northeastern Saskatchewan, Canada.

Eutamias minimus caniceps Osgood†*

1900. *Eutamias caniceps* Osgood, North Amer. Fauna No. 19, p. 28, Oct. 6, 1900.

1922. *Eutamias minimus caniceps* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Lake Laberge, Yukon, Canada. *Range.*—Southern Yukon, southwestern Mackenzie, and northwestern part of British Columbia east of Coast Range; north to Macmillan River, Yukon; east to Nahanni River Mountains, Mackenzie District; south to head of south fork of Stikine River and to near head of Ispatseeza River, northern British Columbia; west to Lake Bennett, northwestern British Columbia and Lake Laberge, southwestern Yukon. Zonal range, Canadian.

Eutamias minimus neglectus (J. A. Allen)*

1890. *Tamias quadrivittatus neglectus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 106, June 1890. (Regarded as a synonym of *borealis* by A. H. Howell, North Amer. Fauna No. 52, p. 54, Nov. 30, 1929, and as a valid subspecies by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 114, Jan. 24, 1947.)

1922. *Eutamias minimus neglectus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

1925. *Eutamias minimus jacksoni* A. H. Howell†, Journ. Mamm., vol. 6, No. 1, p. 53, Feb. 9, 1925. (Crescent Lake, Oneida County, Wisc. Subspecies *neglectus* renamed on assumption that type specimen is referable to *borealis.* Distinctness from *neglectus* also questioned by Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 4, Nov. 10, 1943.)

Type Locality.—Mouth of Montreal River, eastern end of Lake Superior, Ontario, Canada. *Range.*—From southeastern Manitoba (Caddy Lake, Sandilands Forest Reserve, Vivian) across Ontario probably to Lake Abitibi, north at least to Lake Seul and Kapuskasing; southward into northern Michigan, Wisconsin, and northeastern Minnesota, intergrading with *borealis* in southern Manitoba and probably with *hudsonius* in northwestern Ontario (Anderson, loc. cit.).

amoenus—group

Eutamias amoenus amoenus (J. A. Allen) †*

1890. *Tamias amoenus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 90, June 1890.

1897. *E[utamias] amoenus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 191, July 1, 1897.

1913. *Eutamias amoenus propinquus* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 32, p. 6, Mar. 7, 1913. (Ironside, Malheur County, Oreg.)

1929. *Eutamias amoenus amoenus* A. H. Howell, North Amer. Fauna No. 52, p. 29, Nov. 30, 1929.

Type Locality.—Fort Klamath, Klamath County, Oreg. *Range.*—Central and eastern Oregon (except on deserts and in Blue Mountains), north to Columbia River; in Idaho, mountainous areas south of main Salmon River east to Lemhi Mountains; also, in mountains south of Snake River desert east to Swan Lake, Bannock County (Davis, The Recent mammals of Idaho, p. 216, Apr. 5, 1939); south to Pine Canyon, 6,600 feet, Raft River Mountains, Box Elder County, northwestern Utah (Hall, Univ. California Pub. Zool., vol. 37, No. 1, p. 3, Apr. 10, 1931) and to north-central Elko County and northwestern Washoe County, Nev. (Hall, Mammals of Nevada, p. 334, July 1, 1946); and in mountains of northeastern California, including Cascade-Sierran Divide north of Feather River, Modoc Lava Beds region, and Warner Mountains (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 85, Dec. 24, 1943). Zonal range, Transition and Canadian; vertical range, 4,000 to 9,000 feet altitude.

Eutamias amoenus celeris Hall and Johnson*

1940. *Eutamias amoenus celeris* Hall and Johnson, Proc. Biol. Soc. Washington, vol. 53, p. 155, Dec. 19, 1940.

Type Locality.—Near head of Big Creek, Pine Forest Mountains, Humboldt County, Nev. Altitude, 8,000 feet. *Range.*—Transition Zone and higher parts of Pine Forest Mountains in northern Humboldt County.

Eutamias amoenus cratericus Blossom*

1937. *Eutamias amoenus cratericus* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 366, p. 1, Dec. 1, 1937.

Type Locality.—Grassy Cone, Craters of the Moon National Monument, 26 miles southwest of Arco, Butte County, Idaho. Altitude, 6,000 feet. *Range.*—

Lava beds in and near Craters of the Moon National Monument, Snake River Plains, south-central Idaho.

Eutamias amoenus ochraceus A. H. Howell†*

1925. *Eutamias amoenus ochraceus* A. H. Howell, Journ. Mamm., vol. 6, No. 1, p. 54, Feb. 9, 1925.

Type Locality.—Studhorse Canyon, Siskiyou Mountains, Siskiyou County, Calif. *Range.*—Mountains of northwestern California, including Siskiyou, South Fork, Salmon, Scott, and Yolla Bolly Ranges (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 84, Dec. 24, 1943) ; south to Snow Mountain, northwestern Colusa County (Johnson, Journ. Mamm., vol. 28, No. 1, p. 65, Feb. 17, 1947) ; north to Siskiyou Mountains in southern Josephine and Jackson Counties, Oreg. Zonal range, Transition and Canadian.

Eutamias amoenus monoensis Grinnell and Storer*

1916. *Eutamias amoenus monoensis* Grinnell and Storer, Univ. California Publ. Zool., vol. 17, No. 1, p. 3, Aug. 23, 1916.

Type Locality.—Warren Fork of Leevining Creek, Mono County, Calif. Altitude, 9,200 feet. *Range.*—In California, central Sierra Nevada, mainly on east slope, from Feather River south to Mammoth Pass (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 86, Dec. 24, 1943) ; in Nevada, Sierra Nevada in vicinity of Lake Tahoe (Hall, Mammals of Nevada, p. 335, July 1, 1946). Zonal range, Transition to Canadian.

Eutamias amoenus luteiventris (J. A. Allen) †*

1890. *Tamias quadrivittatus luteiventris* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 101, June 1890.

1922. *Eutamias amoenus luteiventris* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 179, Aug. 4, 1922.

Type Locality.—"Chief Mountain Lake" [=Waterton Lake], Alberta (3½ miles north of the U. S.–Canada boundary). *Range.*—Rocky Mountain region of southwestern Alberta, north to Bow River Valley (Banff) ; south-central and southeastern British Columbia, north to Kinbasket Lake on west slope of Rocky Mountains and west-southwest through mountains to North Thompson River near Kamloops, the Monashee Range on east side of Okanagan Valley, and Revelstoke (Cowan, Proc. Biol. Soc. Washington, vol. 59, p. 108, Oct. 25, 1946) ; southeast through east side of Kootenay River to extreme northeastern Washington, western Montana (east to Highwood and Crazy Mountains) and northwestern Wyoming (east to Shoshone Range and south to Salt River Mountains) ; in Idaho along Idaho-Montana and Idaho-Wyoming boundaries south to Caribou County and westward across Idaho mainly north of Salmon River (Davis, The Recent mammals of Idaho, p. 220, Apr. 5, 1939). Zonal range, Transition and Canadian; vertical range, 4,000 feet (Waterton Lakes, Alberta) to 10,000 feet (Teton Mountains, Wyo.).

Eutamias amoenus albiventris Booth†*

1947. *Eutamias amoenus albiventris* Booth, Murrelet, vol. 28, No. 1, p. 7, Apr. 30, 1947.

Type Locality.—Wickiup Spring, 23 miles west of Anatone, on the Asotin–Garfield County boundary, Wash. *Range.*—Blue Mountains of Washington and

Oregon; found in Asotin, Columbia, Garfield, and Walla Walla Counties, Wash., and Baker, Union, Umatilla, and Wallowa Counties, Oreg.; southern limit of range not determined.

Eutamias amoenus vallicola A. H. Howell†*

1922. *Eutamias amoenus vallicola* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 179, Aug. 4, 1922. (Validity questioned by Davis, Murrelet, vol. 18, p. 24, Sept. 4, 1937.)

Type Locality.—Bass Creek, near Stevensville, Ravalli County, Mont. Altitude, 3,725 feet. *Range.*—Known only from Bitterroot Valley, Mont., and foothills on each side. Zonal range, Transition; vertical range, 3,000 to 4,500 feet altitude.

Eutamias amoenus canicaudus Merriam†*

1903. *Eutamias canicaudus* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 77, May 29, 1903.

1922. *Eutamias amoenus canicaudus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Spokane, Spokane County, Wash. *Range.*—West side of Kootenay River (Cranbrook and opposite Newgate) in southeastern British Columbia where it intergrades with *luteiventris* (Cowan, Proc. Biol. Soc. Washington, vol. 59, p. 109, Oct. 25, 1946); eastern Washington east of Columbia River, north to Marcus and south to foothills of Blue Mountains in southeastern part of State; northern Idaho from near Lake Pend Oreille south to Clearwater drainage basin (Davis, The Recent mammals of Idaho, p. 221, Apr. 5, 1939); and east to Clark Fork of Columbia River in northwestern Montana (opposite Thompson Falls).

Eutamias amoenus affinis (J. A. Allen)*

1890. *Tamias quadrivittatus affinis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 103, June 1890.

1922. *Eutamias amoenus affinis* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Ashcroft, British Columbia, Canada. *Range.*—Interior of southern British Columbia, north to Clinton, Kamloops and Salmon Arm, and east to Okanagan Lake and Midway (Cowan, Proc. Biol. Soc. Washington, vol. 59, p. 109, Oct. 25, 1946); west to Lillooet, British Columbia; south through eastern slopes of Cascade Range in Washington to Columbia River and east to eastern Okanogan County. Intergradation between *affinis* and *luteiventris* takes place in region of Monashee Range on eastern side of Okanagan Valley (Cowan, op. cit., p. 108). Zonal range, Transition; vertical range, 1,000 feet (Oroville, Wash.) to 6,500 feet (Okanogan County, Wash.).

Eutamias amoenus septentrionalis Cowan*

1946. *Eutamias amoenus septentrionalis* Cowan, Proc. Biol. Soc. Washington, vol. 59, p. 110, Oct. 25, 1946.

Type locality.—Ootsa Lake Post Office, north shore of Ootsa Lake, British Columbia, Canada. *Range.*—Great plateau area constituting western Cariboo and Chilcotin Districts, west of Fraser River, in west-central British Columbia;

north at least to Babine Lake and Hazelton; south at least to Chezacut Lake; and west to seacoast at head of certain inlets (Dean and Bella Coola Inlets).

Eutamias amoenus ludibundus Hollister†*

1911. *Eutamias ludibundus* Hollister, Smithsonian Misc. Coll. vol. 56, No. 26, p. 1, Dec. 5, 1911.

1922. *Eutamias amoenus ludibundus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Yellowhead (or Cowdung) Lake, British Columbia, Canada. Altitude, 3,700 feet. *Range.*—Extreme west-central Alberta (head of Smoky River and Athabaska Valley near Jasper to Kicking Horse Pass); west slope of Rocky Mountains in vicinity of Robson to valley of Fraser River near Quesnel and thence south through eastern Cariboo district to Canim Lake and Lac la Hache, British Columbia (Cowan, Proc. Biol. Soc. Washington, vol. 59, p. 110, Oct. 25, 1946); southward through Lillooet district, British Columbia, and on both slopes of Cascades as far as central Oregon. Zonal range, Canadian.

Eutamias amoenus felix (Rhoads)*

1895. *Tamias quadrivittatus felix* Rhoads, Amer. Nat., vol. 29, p. 941, October 1895.

1922. *Eutamias amoenus felix* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Church Mountain, Mount Baker Range, New Westminster district, British Columbia, Canada, near international boundary line. Altitude, 7,000 feet. *Range.*—Coast region, from Mount Baker Range, northwestern Washington near United States–Canada boundary, north to Fawn Bluff and Purcell Point on Bute Inlet, southern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 116, Jan. 24, 1947). Zonal range, Canadian and Transition; vertical range, sea level to 7,000 feet altitude.

Eutamias amoenus caurinus Merriam†*

1898. *Eutamias caurinus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 352, Oct. 4, 1898.

1922. *Eutamias amoenus caurinus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Timber line near head of Soleduc River, Olympic Mountains, Clallam County, Wash. *Range.*—Olympic Mountains. (See also Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, pp. 346–348, Dec. 15, 1952.)

Eutamias panamintinus panamintinus (Merriam)†*

1893. *Tamias panamintinus* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 134, Dec. 28, 1893.

1897. *E*[*utamias*] *panamintinus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 191, July 1, 1897.

1931. *Eutamias panamintinus juniperus* Burt, Journ. Mamm., vol. 12, No. 3, p. 298, Aug. 24, 1931. (One-half a mile west of Wheeler Well, west slope of Charleston Mountains [=Peak], Clark County, Nev. Altitude, 6,700 feet. Regarded as identical with *panamintinus* by Johnson, Univ. California

Publ. Zool., vol. 48, No. 2, p. 95, Dec. 24, 1943. See also, Hall, Mammals of Nevada, p. 338, July 1, 1946.)

Type Locality.—Johnson Canyon [more exactly, near lower edge of piñon belt at about 5,000 feet altitude, in vicinity of Hungry Bills' Ranch as shown on U. S. Geol. Surv. Ballarat Quadrangle, March 1913], Panamint Mountains, Inyo County, Calif. *Range.*—In California, east side of Sierra Nevada from Rock Creek south to 5 miles southwest of Olancha; high country at head of Owens Valley (Benton and Antelope Peak); White Mountains and Inyo Mountains, south to Mazourka Canyon; Grapevine, Panamint, Coso, and Argus Ranges; Clark Mountain and Mescal Range; Providence Mountains (including New York Mountains) from vicinity of Ivanpah south to Granite Mountains (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 93, Dec. 24, 1943); in Nevada, piñon–juniper areas along southwestern border of State from Douglas County south to Potosi Mountain at lat. 36° N. (Hall, op. cit., p. 336).

Eutamias panamintinus acrus Johnson

1943. *Eutamias panamintinus acrus* Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 94, Dec. 24, 1943.

Type Locality.—Near (1.4 miles southeast of) Horse Spring, Kingston Range, northeastern San Bernardino County, Calif. Altitude, 5,000 feet. *Range.*—Restricted to Kingston Range, in northeastern San Bernardino County.

quadrivittatus—group

Eutamias quadrivittatus quadrivittatus (Say)*

1823. *Sciurus quadrivittatus* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 2, p. 45.

1884. *Tamias asiaticus quadivittatus* [sic] True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1890. *Tamias quadrivittatus gracilis* J. A. Allen†, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 99, June 1890. (San Pedro, Socorro County, N. Mex.)

1901. *Eutamias quadrivittatus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 43, Dec. 27, 1901.

1909. *Eutamias quadrivittatus animosus* Warren†, Proc. Biol. Soc. Washington, vol. 22, p. 105, June 25, 1909. (Irwin's Ranch, T. 29 S., R. 52 W., Las Animas County, Colo. Altitude, 5,000 feet.)

1922. *Eutamias quadrivittatus quadrivittatus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—On Arkansas River, about 26 miles below Canyon City, in Pueblo County, Colo. (See Merriam, Proc. Biol. Soc. Washington, vol. 18, p. 163, June 29, 1905.) *Range.*—Mountains and foothills of central Colorado and northern New Mexico; north to Estes Park, east to Tucumcari, N. Mex., and Kenton, Okla.; south to Manzano Mountains; west to Chuska Mountains, N. Mex., Silverton and Sapinero, Colo. Zonal range, Transition and Canadian; vertical range, 5,000 to 10,800 feet.

Eutamias quadrivittatus hopiensis Merriam†*

1905. *Eutamias hopiensis* Merriam, Proc. Biol. Soc. Washington, vol. 18, p. 165, June 29, 1905.

1922. *Eutamias quadrivittatus hopiensis* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Keams Canyon, Painted Desert, Navajo County, Ariz. *Range.*—Northeastern Arizona; yellow pine forests of Chuska Mountains, mesas and canyon rims of San Juan Valley, and Jicarillo Indian Reservation in northwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 84, Mar. 1. 1932); southeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, pp. 44–45, Feb. 15, 1951), and western Colorado; north to White River, Colorado; east to Eagle and western Gunnison Counties, Colo.; south to Keams Canyon, Ariz.; west to Keams Canyon, Ariz., and Bluff City, Utah (probably to Colorado and Green Rivers). Zonal range, Transition; vertical range, 4,500 to 7,000 feet.

Eutamias quadrivittatus inyoensis Merriam†*

1897. *Eutamias speciosus inyoensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 208, July 1, 1897.

1929. *Eutamias quadrivittatus inyoensis* A. H. Howell, North Amer. Fauna No. 52, p. 84, Nov. 20, 1929.

Type Locality.—White Mountains near head of Black Canyon, Inyo County, Calif. Altitude, about 9,000 feet. *Range.*—Higher mountains of the Great Basin in eastern California and Nevada; in California, near crest of Sierra Nevada, from Mammoth Pass, Mono County, south to Cirque Peak, Inyo and Tulare Counties; and White Mountains in Mono County south to head of Black Canyon, Inyo County; and Inyo Mountains, Inyo County (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 95, Dec. 24, 1943); in Nevada, Transition Zone and higher in White Mountains of Esmeralda County, and in isolated mountain ranges of central part of State from Desatoya Range eastward and from Ruby Mountains southward to Kawich Mountains and Irish Mountain (Hall, Mammals of Nevada, p. 341, July 1, 1946); and in extreme western Utah in Deep Creek and Raft River Mountains (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 145, Aug. 10, 1952).

Eutamias quadrivittatus nevadensis Burt

1931. *Eutamias quadrivittatus nevadensis* Burt, Journ. Mamm., vol. 12, No. 3, p. 299, Aug. 24, 1931.

Type Locality.—Hidden Forest. Sheep Mountains, Clark County, Nev. Altitude, 8,500 feet. *Range.*—Sheep Mountains, Clark County, in yellow pine, fir, and bristlecone pine associations at an altitude of 8,500 feet and possibly higher. Zonal range, Transition and higher.

Eutamias quadrivittatus umbrinus (J. A. Allen)†*

1890. *Tamias umbrinus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 96, June 1890.

1901. *Eutamias umbrinus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 45, Dec. 27, 1901.

1945. *Eutamias quadrivittatus umbrinus* Hayward, Great Basin Nat., vol. 6, p. 62, Nov. 15, 1945.

Type Locality.—Black Fork, Uinta Mountains, Utah. Altitude, 9,500 feet. *Range.*—Uinta and Wasatch Mountains in northeastern Utah and southwestern

Wyoming; also mountains of western Wyoming (Salt River, Teton, Wind River, Absaroka, and other Ranges); and Big Hole Mountains east of Idaho Falls and Wasatch, or Bear River, Range in southeastern Idaho (Davis, The Recent mammals of Idaho, p. 224, Apr. 5, 1939); north to Beartooth Mountains, Mont.; southern limits not definitely known. Zonal range, Canadian; vertical range, 7,000 to 11,000 feet.

Eutamias quadrivittatus adsitus J. A. Allen*

1905. *Eutamias adsitus* J. A. Allen, Mus. Brooklyn Inst. Sci. Bull., vol. 1, p. 118, Mar. 31, 1905.

1929. *Eutamias adsitus* A. H. Howell, North Amer. Fauna No. 52, p. 93, Nov. 30, 1929. (Regarded as most nearly related to *umbrinus*.)

1945. *Eutamias quadrivittatus adsitus* Hardy, Proc. Biol. Soc. Washington, vol. 58, p. 87, June 30, 1945. (Regarded as conspecific with *nevadensis* and *inyoensis*.)

Type Locality.—Brigg's [not Britt's] Meadows, 5 miles west of Puffer Lake, Beaver County, Utah (see Hardy, Journ. Mamm., vol. 26, No. 4 (November 1945), p. 432, Feb. 12, 1946). *Range.*—Kane, Washington, Beaver (Hardy, 1945, p. 87), Garfield, Wayne, and Sevier Counties (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 44, Feb. 15, 1951) in southern Utah and Kaibab Plateau in northern Arizona. Zonal range, Canadian; vertical range, 8,000 to 11,000 feet.

Eutamias speciosus speciosus (Merriam)†*

1890. *Tamias speciosus* Merriam, *in* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 86, June 1890. (Regarded as distinct from *quadrivittatus* by Johnson, Univ. California Publ. Zool., vol. 48, No. 2, pp. 102, 106, Dec. 24, 1943.)

1929. *Eutamias quadrivittatus speciosus* A. H. Howell, North Amer. Fauna No. 52, p. 89, Nov. 30, 1929.

Type Locality.—Head of White Water Creek, San Bernardino Mountains, San Bernardino County, Calif. Altitude, 7,500 feet. *Range.*—Isolated Boreal summits of Piute, San Bernardino, and San Jacinto Mountains, Calif. Also recorded (A. H. Howell, op. cit., p. 90) from San Gabriel Mountains.

Eutamias speciosus frater (J. A. Allen)*

1890. *Tamias frater* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 88, June 1890. (Regarded as a subspecies of *speciosus* by Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 104, Dec. 24, 1943.)

1929. *Eutamias quadrivittatus frater* A. H. Howell, North Amer. Fauna No. 52, p. 84, Nov. 30, 1929.

Type Locality.—Donner [=Summit], Placer County, Calif. *Range.*—Northern and central Sierra Nevada, from Mount Lassen and Eagle Lake south to Huntington Lake, Fresno County, Calif. (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 105, Dec. 24, 1943); zonal range in Nevada chiefly Canadian but invading, for a short distance, Hudsonian and Transition in vicinity of Lake Tahoe (Hall, Mammals of Nevada, p. 344, July 1, 1946).

Eutamias speciosus sequoiensis A. H. Howell†*

1922. *Eutamias speciosus sequoiensis* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 180, Aug. 4, 1922.

1930. *Eutamias quadrivittatus sequoiensis* A. H. Howell, North Amer. Fauna No. 52, p. 88, Nov. 30, 1929. (Regarded as a subspecies of *speciosus* by Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 106, Dec. 24, 1943.)

Type Locality.—Mineralking, east fork of Kaweah River, Tulare County, Calif. Altitude, 7,300 feet. *Range.*—Southern Sierra Nevada, on west slope, from Kings River Canyon south to Cannell Meadow and Taylor Meadow, southern Tulare County, and on east slope near headwaters of Cottonwood Creek, Inyo County; intergrades with *frater* in northeastern Fresno County, Calif. (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 106, Dec. 24, 1943).

Eutamias speciosus callipeplus (Merriam) †*

1893. *Tamias callipeplus* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 136, Dec. 28, 1893. (Regarded as a subspecies of *speciosus* by Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 107, Dec. 24, 1943.)

1929. *Eutamias callipeplus* A. H. Howell, North Amer. Fauna No. 52, p. 91, Nov. 30, 1929.

Type Locality.—Summit of Mount Pinos, Ventura County, Calif. Altitude, 8,800 feet. *Range.*—Summit and upper slopes of Mount Pinos. Zonal range, Canadian and high Transition.

Eutamias palmeri Merriam†*

1897. *Eutamias palmeri* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 208, July 1, 1897.

Type Locality.—Charleston Peak, Clark County, Nev. Altitude, 8,000 feet. *Range.*—Known from Charleston Peak only. Zonal range, Transition and higher; vertical range, 7,000 to 12,000 feet.

Eutamias ruficaudus ruficaudus A. H. Howell†*

1920. *Eutamias ruficaudus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 33, p. 91, Dec. 30, 1920.

Type Locality.—Upper St. Marys Lake, Glacier County, Mont. *Range.*—Eastern slopes of Rocky Mountain divide in western Montana from Deer Lodge County north through Glacier National Park to Canadian boundary; in Canada occurs abundantly at higher levels of Waterton Lakes National Park, in extreme southwestern corner of Alberta, as well as on western side of British Columbia-Alberta boundary in same region (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 116, Jan. 24, 1947). Zonal range, Canadian; vertical range, 4,000 to 8,000 feet.

Eutamias ruficaudus simulans A. H. Howell†*

1922. *Eutamias ruficaudus simulans* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 179, Aug. 4, 1922.

Type Locality.—Coeur d'Alene, Kootenai County, Idaho. *Range.*—Mountains of northwestern Montana (west of the main divide), northern Idaho south to Latah and Idaho Counties, northeastern Washington, and southeastern British Columbia north to Creston, Nelson, and Invermere in East Kootenay Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 117, Jan. 24, 1947). Zonal range, Transition and Canadian; vertical range, 2,400 to 6,300 feet.

Eutamias cinereicollis cinereicollis (J. A. Allen) †*

1890. *Tamias cinereicollis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 94, June 1890.

1901. *Eutamias cinereicollis* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 40, Dec. 27, 1901.

Type Locality.—San Francisco Mountain, Coconino County, Ariz. *Range.*—Mountain and plateau region of central Arizona from San Francisco Mountains southward across Mogollon Plateau to White Mountains and Prieto Plateau; east to San Francisco Range, N. Mex. Zonal range, Canadian; vertical range, 6,500 to 11,500 feet.

Eutamias cinereicollis cinereus V. Bailey†*

1913. *Eutamias cinereicollis cinereus* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 130, May 21, 1913.

Type Locality.—Magdalena Mountains, Socorro County, N. Mex. *Range.*—Mountains of southwestern New Mexico (Magdalena, San Mateo, Mimbres, and Mogollon Ranges). Zonal range, Transition and Canadian; vertical range, 6,700 to 10,000 feet.

Eutamias cinereicollis canipes V. Bailey†*

1902. *Eutamias cinereicollis canipes* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 117, June 2, 1902.

Type Locality.—Guadalupe Mountains, El Paso County, Tex. *Range.*—Mountains of southeastern New Mexico and western Texas (Jicarilla, Capitan, White, and Guadalupe Mountains). Zonal range, Canadian and Transition; vertical range, 7,000 to 12,000 feet.

Eutamias bulleri bulleri (J. A. Allen)*

1889. *Tamias asiaticus bulleri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 173, Oct. 21, 1889.

1901. *Eutamias bulleri* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 40, Dec. 27, 1901.

Type Locality.—Sierra de Valparaiso, Zacatecas, México. *Range.*—Southern end of Sierra Madre, in Zacatecas. Zonal range, Transition; vertical range, 8,000 to 8,700 feet.

Eutamias bulleri durangae J. A. Allen*

1903. *Eutamias durangae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 594, Nov. 12, 1903.

1905. *Tamias nexus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 233, Dec. 9, 1905. (Coyotes, Durango, México.)

1922. *Eutamias bulleri durangae* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

Type Locality.—Arroyo de Bucy, northwest Durango, México. *Range.*—Sierra Madre of México from southern Durango north to southern Chihuahua. Zonal range, Transition; vertical range, 6,500 to 8,500 feet.

Eutamias bulleri solivagus A. H. Howell†*

1922. *Eutamias bulleri solivagus* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 179, Aug. 4, 1922.

Type Locality.—Sierra Guadalupe, Coahuila, México. *Range.*—Known from type locality only. Zonal range, Transition; vertical range, 8,500 to 9,500 feet.

townsendii—group

Eutamias townsendii townsendii (Bachman)*

1839. *Tamias townsendii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 1, p. 68.

1842. *Tamias hindei* (typographical error for *hindsii*) Gray, Ann. Mag. Nat. Hist., vol. 10, p. 264, December 1842. (California [At or near Fort Vancouver, Clark County, Wash., according to A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 182, Aug. 4, 1922; and North Amer. Fauna No. 52, p. 106, Nov. 30, 1929]; more probably somewhere among "the inner coast ranges of California north of San Francisco Bay" [therefore not within the range of *Eutamias townsendii townsendii*] according to Johnson, Univ. California Publ. Zool. vol. 48, No. 2, p. 137, Dec. 24, 1943.)

1884. *Tamias asiaticus townsendi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1897. *E[utamias] townsendi* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 192, July 1, 1897.

1903. *Tamias townsendi littoralis* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 153, May 2, 1903. (Marshfield, Coos County, Oreg.)

Type Locality.—Lower Columbia River, near lower mouth of Willamette River, Oreg. *Range.*—Coast region of southwestern British Columbia, from lower Fraser River east to Church Mountain in Mount Baker Range (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 117, Jan. 24, 1947) and coast region of Washington and Oregon west of Cascade Range as far south as Coos County (Myrtle Point), Oreg.; east to Church Mountain ("Mount Baker Range"), British Columbia, Mount Saint Helen, Wash., and western base of Cascade Range in northern Oregon. Zonal range, Transition and Lower Canadian; vertical range, sea level to 6,000 feet. (See also Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 350, Dec. 15, 1952.)

Eutamias townsendii cooperi (Baird)†*

1855. *Tamias cooperi* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 334, April 1855.

1907. *Eutamias cooperi* Lyon, Smithsonian Misc. Coll., vol. 50, p. 89.

1919. *Eutamias townsendii cooperi* Taylor, Proc. California Acad. Sci., ser. 4, vol. 9, p. 110, July 12, 1919.

Type Locality.—Klickitat Pass, Cascade Mountains, Skamania County, Wash. Altitude, 4,500 feet. (See Cooper, Amer. Nat., vol. 2, p. 531, December 1868.) *Range.*—Cascade Range (both slopes) in Washington and Oregon and higher parts of Olympic Mountains, Wash.; north to southwestern British Columbia (near Hope); south in Cascades to Three Sisters, Oreg., and in western Oregon to southern Douglas County (Glendale); east to Lake Chelan and Wenatchee, Wash., west to Reston, Oreg. Zonal range, Canadian; vertical range, 1,100 feet (Lake Chelan) to 6,500 feet.

Eutamias townsendii ochrogenys Merriam†*

1897. *Eutamias townsendi ochrogenys* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 195, July 1, 1897.

Type Locality.—Mendocino, Mendocino County, Calif. *Range.*—Coastal region of southwestern Oregon and northwestern California, from Port Orford, Oreg., south to Freestone, Sonoma County, Calif. Zonal range, Transition; vertical range, sea level to 2,700 feet altitude.

Eutamias townsendii siskiyou A. H. Howell†*

1922. *Eutamias townsendii siskiyou* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 180, Aug. 4, 1922.

Type Locality.—Near summit of White Mountain, Siskiyou Mountains, Siskiyou County, Calif. Altitude, 6,000 feet. *Range.*—In Siskiyou Mountain region of southern Oregon north to southern Douglas County (west base of Three Sisters); in California, three discontinuous areas, including seaward slopes and higher parts of Siskiyou, Marble, and South Fork Mountains of eastern Del Norte and Humboldt and western Siskiyou Counties; intergrading toward west with *ochrogenys* and toward east with *senex* (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 115, Dec. 24, 1943). Zonal range, Canadian.

Eutamias townsendii senex (J. A. Allen)†*

1890. *Tamias senex* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 83, June 1890.

1922. *Eutamias townsendii senex* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 181, Aug. 4, 1922.

Type Locality.—Summit of Donner Pass, Placer County, Calif. Altitude, 7,100 feet. *Range.*—Central and southern Oregon, including crest, eastern slope, and forested areas immediately east of Cascade Range, north to 20 miles west of Warm Springs and east of Arnold Ice Cave and Warner Mountains; in extreme western Nevada, small area along east shore of Lake Tahoe; in California, mountains of northeastern part of State, including western part of Salmon-Scott Range, Yolla Bolly Range, Snow Mountain, Warner Mountains, Cascade Range, and Sierra Nevada south at least to Shaver Lake, Fresno County (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 115, Dec. 24, 1943).

Eutamias quadrimaculatus (Gray)*

1867. *Tamias quadrimaculatus* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 435, December 1867.

1886. *Tamias macrorhabdotes* Merriam†, Proc. Biol. Soc. Washington, vol. 3, p. 25, Jan. 27, 1886. (Blue Canyon, Placer County, Calif. For status see Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 203, July 1, 1897.)

1897. *E[utamias] quadrimaculatus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 191, July 1, 1897.

Type Locality.—East of Michigan Bluff, Placer County, Calif. *Range.*—In California, Sierra Nevada, from vicinity of Lake Almanor, Plumas County, south to vicinity of Bass Lake, Madera County; in Nevada, on eastern shore of Lake Tahoe (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 119, Dec. 24, 1943). Zonal range, Transition and Lower Canadian; vertical range, 3,200 to 7,500 feet.

Eutamias sonomae sonomae Grinnell*

1915. *Eutamias sonomae* Grinnell, Univ. California Publ. Zool., vol. 12, No. 11, p. 321, Jan. 20, 1915.

1922. *Eutamias townsendii sonomae* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 184, Aug. 4, 1922.

1943. *Eutamias sonomae sonomae* Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 125, Dec. 24, 1943. (Regarded as distinct from *townsendii* by Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 131, Sept. 26, 1933; and by Johnson, pp. 123–126.)

Type Locality.—One mile west of Guerneville, Sonoma County, Calif. *Range.*—Inner coastal region of northern California, from Klamath River south to Sonoma, Napa, and Solano Counties; north to Seiad Valley, vicinity of Yreka, and 1½ miles southwest of Edgewood; east to 1 mile south of Weed, Dana, east side of South Yolla Bolly Mountain, Fouts Springs, Rumsey, and 3 miles west of Vacaville; south to Vacaville, Eldridge, and Freestone; west to 7 miles west of Cazadero, Christine, Briceland, and Horse Mountain (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 125, Dec. 24, 1943.

Eutamias sonomae alleni A. H. Howell†*

1922. *Eutamias townsendii alleni* A. H. Howell, Journ. Mamm., vol. 3, No. 3, p. 181, Aug. 4, 1922.

1929. *Eutamias alleni* A. H. Howell, North Amer. Fauna No. 52, p. 119, Nov. 30, 1929.

1943. *Eutamias sonomae alleni* Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 126, Dec. 24, 1943.

Type Locality.—Inverness, Marin County, Calif. *Range.*—Restricted to Marin County, Calif., where it is known to range from near Muir Woods north to Nicasio and northwest, on Point Reyes peninsula, to 5 miles west of Inverness (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 126, Dec. 24, 1943).

Eutamias merriami merriami (J. A. Allen)*

1889. *Tamias asiaticus merriami* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 176, Oct. 21, 1889.

1897. *E[utamias] merriami* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 191, July 1, 1897.

1916. *Eutamias merriami mariposae* Grinnell and Storer, Univ. California Publ. Zool., vol. 17, No. 1, p. 4, Aug. 23, 1916. (El Portal, Mariposa County, Calif.)

Type Locality.—San Bernardino Mountains [due north of San Bernardino], San Bernardino County, Calif. Altitude, 4,500 feet. *Range.*—In California, Coast Ranges from areas of intergradation with *pricei* in southern Santa Cruz and Santa Clara Counties and Monterey County south on both sides of Salinas Valley to mountains of northern Ventura County; west flank of Sierra Nevada from vicinity of Columbia, Tuolumne County, south to Tulare County; mountains of southwestern California from Mount Pinos through San Gabriel and San Bernardino Ranges at least to Barkers Dam in the Little San Bernardino Mountains, and San Jacinto and Santa Rosa Mountains and mountains of central San Diego County south at least to north end of Nachoguero Valley, in Baja California near California boundary (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 133, Dec. 24, 1943).

Eutamias merriami pricei (J. A. Allen)*

1895. *Tamias pricei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 333, Nov. 8, 1895.

1899. *Eutamias merriami pricei* Trouessart, Catalogus Mammalium . . ., fasc. 6 (Appendix), p. 1312 (received June 1899).

Type Locality.—Portola, San Mateo County, Calif. *Range.*—Two distinct areas in California; mountains of San Mateo, Santa Cruz, and western Santa Clara Counties, from vicinity of Menlo Park south to Santa Cruz; northern part of Santa Lucia Mountains, from Palo Colorado Canyon south at least to Partington Point and east to include Santa Lucia Peak; both populations intergrade toward southeast with *merriami* (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 132, Dec. 24, 1943).

Eutamias merriami kernensis Grinnell and Storer*

1916. *Eutamias merriami kernensis* Grinnell and Storer, Univ. California, Publ. Zool., vol. 17, No. 1, p. 5, Aug. 23, 1916.

Type Locality.—Fay Creek, 6 miles north of Weldon, Kern County, Calif. Altitude, 4,100 feet. *Range.*—Area in southeastern Tulare and northeastern Kern Counties, including drainage of south fork of Kern River, Walker Basin, Walker Pass, Kiavah Mountain, and Piute Mountains; also restricted area in vicinity of Onion Valley, on east side of Sierra Nevada, Inyo County, Calif. (Johnson, Univ. California Publ. Zool., vol. 48, No. 2, p. 134, Dec. 24, 1943).

Eutamias merriami obscurus (J. A. Allen)†*

1890. *Tamias obscurus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 70, June 1890.

1909. *E[utamias] m[erriami] obscurus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 23, Mar. 10, 1909.

Type Locality.—Sierra San Pedro Mártir, Baja California, México. *Range.*—Sierra San Pedro Mártir and Hanson Laguna Mountains, northern Baja California. Zonal range, Transition; vertical range, 7,000 to 8,500 feet.

Eutamias merriami meridionalis Nelson and Goldman†*

1909. *Eutamias merriami meridionalis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 23, Mar. 10, 1909.

Type Locality.—Aguaje de San Esteban, about 25 miles northwest of San Ignacio, Baja California, México. *Range.*—Known only from type locality and from San Pablo, Baja California. Zonal range, Lower Sonoran [probably also Upper Sonoran]; vertical range, 1,000 to 1,200 feet.

Eutamias dorsalis dorsalis (Baird)†*

1855. *Tamias dorsalis* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 332, April 1855.

1884. *Tamias asiaticus dorsalis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1897. *E[utamias] dorsalis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 210, July 1, 1897.

1904. *Eutamias canescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 208, May 28, 1904. (Guanacevi, Durango, México.)

Type Locality.—Fort Webster (copper mines), on the Gila River, near present site of Santa Rita, Grant County, N. Mex. (See V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 91, Mar. 1, 1932.) *Range.*—Plateau region of Arizona south of Grand Canyon; western New Mexico; south in Sierra Madre to northwestern Durango; east in New Mexico to Rio Grande Valley; west in Arizona to Hualpai Mountains; north to Grand Canyon and Fort Defiance, Ariz. Zonal range, Upper Sonoran; vertical range, 2,500 feet (Ray, Ariz.) to 10,000 feet in Graham Mountains and Santa Catalina Mountains.

Eutamias dorsalis carminis Goldman†*

1938. *Eutamias dorsalis carminis* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 56, Mar. 18, 1938.

Type Locality.—Sierra del Carmen, Coahuila, México. Altitude, 7,400 feet. *Range.*—Known only from type locality in high mountains of northern Coahuila.

Eutamias dorsalis utahensis Merriam†*

1897. *Eutamias dorsalis utahensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 210, July 1, 1897.

Type Locality.—Ogden, Weber County, Utah. *Range.*—Northwestern Arizona, north of Grand Canyon; along eastern border of Nevada from Cedar Basin to Mount Moriah (Hall, Mammals of Nevada, p. 349, July 1, 1946); Utah; north to juniper-covered hills east of Raft River Valley in southern Idaho; southwestern Wyoming (Green River Valley) and northwestern Colorado (Snake River Valley). Zonal range, Upper Sonoran; vertical range, 3,000 to 7,000 feet altitude.

Eutamias dorsalis grinnelli Burt

1931. *Eutamias dorsalis grinnelli* Burt, Journ. Mamm., vol. 12, No. 3, p. 300, Aug. 24, 1931.

Type Locality.—Mormon Well, Sheep Mountains, Clark County, Nev. Altitude, 6,500 feet. *Range.*—Among piñons and junipers in northeasternmost township of Nevada southward to Sheep Mountains, and in central part of State westward to Toyabe Mountains (Hall, Mammals of Nevada, p. 348, July 1, 1946).

Genus SCIURUS Linnaeus (squirrels)

1758. *Sciurus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 63. (Type, *Sciurus vulgaris* Linnaeus.)

Subgenus NEOSCIURUS[75] Trouessart

1880. *Neosciurus* Trouessart, Le Naturaliste, vol. 2, No. 37, p. 292, October 1880. (Type, *Sciurus carolinensis* Gmelin.)

1880. *Echinosciurus* Trouessart, Le Naturaliste, vol. 2, No. 37, p. 292, October 1880. (Type, *Sciurus hypopyrrhus* Wagler=*Sciurus aureogaster hypopyrrhus.*)

1899. *Baiosciurus* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 31, May 9, 1899. (Type, *Sciurus deppei* Peters.)

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[75] Revised by Nelson under the names *Echinosciurus*, *Neosciurus*, and *Baiosciurus*, Proc. Washington Acad. Sci., vol. 1, pp. 38–83, May 9, 1899.

Sciurus carolinensis[76] **carolinensis** Gmelin (gray squirrels) *

1788. [*Sciurus*] *carolinensis* Gmelin, Caroli a Linné systema naturae . . . , ed. 13, vol. 1, p. 148.

1815. *Sciurus* hiemalis Ord *in* [Guthrie], A new geographical, historical, and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, pp. 292, 304. (Near Tuckerton, near Little Egg Harbor, Ocean County, N. J.)

1884. *Sciurus carolinensis carolinensis* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 595, Nov. 29, 1884.

Type Locality.—"Carolina." *Range.*—Southern Delaware and District of Columbia south to middle of Florida Peninsula, Alabama, Mississippi, northern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 239, Nov. 22, 1943); west to Brazos County, eastern Texas (Peterson, Journ. Mamm., vol. 27, No. 2, p. 166, May 14, 1946); north to eastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 74, September 1944), southeastern Nebraska (Swenk, Studies Zool. Lab. Univ. Nebraska No. 89, p. 24, September 1908), Iowa (Scott, Nature Notes, vol. 8, No. 6, p. 170, June 1941), southern Illinois (Necker and Hatfield, Bull. Chicago Acad. Sci., vol. 6, No. 3, p. 50, May 15, 1941), south of two northern tiers of counties in Indiana (Lyon, Amer. Midl. Nat., vol. 17, p. 203, January 1936), and southern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, p. 138, Sept. 11, 1942).

Sciurus carolinensis extimus Bangs*

1896. *Sciurus carolinensis extimus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 158, Dec. 28, 1896.

Type Locality.—Miami, Dade County, Fla. *Range.*—Southern Florida, north to Brevard County (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 114, 1937).

Sciurus carolinensis matecumbei H. H. Bailey*

1937. *Sciurus carolinensis minutus* H. H. Bailey, Bailey Mus. Libr. Nat. Hist. Bull. 12, Miami [p. 4], Jan. 15, 1937. (Not *Sciurus minutus* du Chaillu, 1861.)

1937. *Sciurus carolinensis matecumbei* H. H. Bailey, Journ. Mamm., vol. 18, No. 4, p. 516, Nov. 22, 1937.

Type Locality.—Key Largo, Monroe County, Fla. *Range.*—Known from type locality only.

Sciurus carolinensis fuliginosus Bachman*

1839. *Sciurus fuliginosus* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 97, Feb. 7, 1839.

1895. *Sciurus carolinensis fuliginosus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 26, p. 543, July 31, 1895.

Type Locality.—Near New Orleans, La. *Range.*—Southern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 239, Nov. 22, 1943), coastal region of Mississippi and of Alabama east to Mobile Bay (A. H. Howell, North Amer. Fauna No. 45, p. 64, Oct. 28, 1921).

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[76] Revised by Bangs, Proc. Biol. Soc. Washington, vol. 10, pp. 153–159, Dec. 28, 1896.

Sciurus carolinensis hypophaeus Merriam†*

1886. *Sciurus carolinensis hypophaeus* Merriam, Science, vol. 7, p. 351, Apr. 16, 1886.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—In Canada, rare and locally distributed in southern Manitoba; reported in Red River Valley as far north as Selkirk and west to Portage la Prairie and the Pembina ridge (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 122, Jan. 24, 1947); south to Upper Peninsula of Michigan (Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 6, Nov. 10, 1943), northern Wisconsin, Minneapolis and Stearns County in Minnesota (Swanson, Minnesota Dept. Conserv. Tech. Bull. No. 2, p. 80, 1945), and southeastern North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 45, Jan. 8, 1927).

Sciurus carolinensis pennsylvanicus Ord*

1815. *Sciurus pennsylvanica* Ord, *in* [Guthrie], A new geographical, historical, and commercial grammar; . . ., Philadelphia, ed. 2, vol. 2, p. 292.

1830. *Sciurus leucotis* Gapper, Zool. Journ., vol. 5, p. 206. (Region between Toronto ("York") and Lake Simcoe, Ontario, Canada.)

1877. *Sciurus carolinensis* var. *leucotis* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 701, August 1877.

1884. *Sciurus carolinensis leucotis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1894. *Sciurus carolinensis pennsylvanicus* Rhoads, A reprint of the North American Zoology, by George Ord. . . . , 1815, Appendix, p. 19.

Type Locality.—Those parts of Pennsylvania westward of the Allegany Ridge. *Range.*—In Canada, southern New Brunswick, southern Quebec, and southern Ontario; introduced in vicinity of Ottawa and Montreal (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 122, Jan. 24, 1947); south to Long Island, N. Y., northern New Jersey, Pennsylvania, northern half of Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, p. 139, Sept. 11, 1952), the two northern tiers of counties in Indiana (Lyon, Amer. Midl. Nat., vol. 17, p. 203, January 1936), northern Illinois (Necker and Hatfield, Bull. Chicago Acad. Sci., vol. 6, p. 50, May 15, 1941), Lower Peninsula of Michigan (Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 6, Nov. 10, 1943), Wisconsin, and south of Stearns County and Minneapolis in Minnesota (Swanson, Minnesota Dept. Conservation Tech. Bull. 2, p. 80, 1945); and in Appalachian Mountains to Great Smoky Mountains in eastern Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 273, Feb. 14, 1939). Introduced at Seattle, Wash. (Flahaut, Murrelet, vol. 22, pp. 63–64, Jan. 20, 1942), and at Stanley Park, Vancouver (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 122, Jan. 24, 1947).

Sciurus deppei deppei Peters*

1863. *Sciurus deppei* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1963, p. 654.

1884. *Sciurus deppei* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

Type Locality.—Papantla, Veracruz, México. *Range.*—Humid Tropical and Austral Zones from Tegucigalpa, Honduras, west, including south, central, and northwestern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 153, May 29, 1942), north along mountains on both coasts of Guatemala and Chiapas to Isthmus of Tehuantepec, and thence along east coast of México to Papantla, Veracruz. Vertical range, below 6,000 feet, sporadically up to 9,000 feet.

Sciurus deppei matagalpae J. A. Allen

1908. *Sciurus deppei matagalpae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 660, Oct. 13, 1908. (Regarded as a poorly marked form by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 153, May 29, 1942.)

Type Locality.—San Rafael del Norte, Jinotega, Nicaragua. *Range.*—North-central Nicaragua.

Sciurus deppei miravallensis Harris

1931. *Sciurus miravallensis* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 227, p. 1, June 4, 1931.

1943. *Sciurus deppei miravallensis* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 10, Oct. 8, 1943.

Type Locality.—Volcán de Miravalles, Cordillera del Guanacaste, northwestern Costa Rica. Altitude, 1,500 feet. *Range.*—Northwestern Costa Rica, mainly on the Cordillera del Guanacaste (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 363, Dec. 31, 1946).

Sciurus deppei vivax Nelson†*

1901. *Sciurus deppei vivax* Nelson, Proc. Biol. Soc. Washington, vol. 14, p. 131, Aug. 9, 1901.

Type Locality.—Apazote, Campeche, México. *Range.*—Central Campeche and southeastern Quintana Roo (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 233, Sept. 28, 1950), México, south at least to El Cayo, British Honduras, and Uaxactún, Guatemala (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 24, July 15, 1935).

Sciurus poasensis [77] Goodwin

1943. *Sciurus poasensis* Goodwin, Amer. Mus. Nov., No. 1218, p. 1, Feb. 11, 1943.

Type Locality.—Volcán Poás, Alajuela, Costa Rica. Altitude, 6,700 feet. *Range.*—Known from type locality only.

Sciurus negligens Nelson†*

1898. *Sciurus negligens* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 147, June 3, 1898. (See Davis, Journ. Mamm., vol. 25, No. 4, p. 383, Dec. 12, 1944.)

Type Locality.—Altamira, Tamaulipas, México. *Range.*—Arid tropical forest of lowlands in extreme northern Veracruz, eastern San Luis Potosí, and southern half of Tamaulipas, México, below 1,000 feet.

Sciurus aureogaster aureogaster F. Cuvier*

1829. [*Sciurus?*] *aureogaster* F. Cuvier *in* É. Geoffroy-Saint-Hilaire and F. Cuvier, Histoire naturelle des mammifères, vol. 6, livr. 59, [p. 2], September

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[77] Systematic position not certain. Allocated to *Syntheosciurus* by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, pp. 365–366, Dec. 31, 1946.

1829. (Binomial published at end of work only, vol. 7, table générale et méthodique, p. 4, 1842.)

1831. *Sciurus leucogaster* F. Cuvier, Supplement à l'histoire naturelle . . . de Buffon, . . . , vol. 1 (mammifères), p. 300. (Regarded as a synonym of *aureogaster* by Osgood, Journ. Mamm., vol. 2, No. 1, p. 39, Aug. 19, 1921.)

1838. *Sc[iurus] aureogaster* Lesson, Compléments de Buffon, . . . , Paris, p. 468, footnote.

1884. *Sciurus aureogaster* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 595, Nov. 29, 1884. (Part.)

Type Locality.—"California." (Really eastern México; specimens from Altamira, Tamaulipas, México, regarded as typical. See Nelson, Proc. Washington Acad. Sci., vol. 1, p. 38, May 9, 1899.) *Range.*—Arid tropical lowlands and adjacent mountains of southern Tamaulipas, northern Veracruz, eastern San Luis Potosí, eastern Querétaro and Puebla, northeastern Hidalgo, and thence south to border of Humid Tropical Zone in central Veracruz, and northern side of Isthmus of Tehuantepec in Oaxaca. Usually below 4,000 feet altitude, but sporadically up to over 8,000 feet in Hidalgo and Querétaro. Recorded also from Nuevo León (Hooper, Journ. Mamm., vol. 28, No. 1, p. 44, Feb. 17, 1947).

Sciurus aureogaster hypopyrrhus Wagler*

1831. *Sciurus hypopyrrhus* Wagler, Isis von Oken, 1831, p. 510. (Regarded as identical *with aureogaster* by Kelson, Univ. Kansas. Publ. Mus. Nat. Hist., vol. 5, No. 17, p. 249, Apr. 10, 1952.)

1884. *Sciurus hypopyrrhus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884. (Part.)

1899. *Sciurus aureogaster hypopyrrhus* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 42, May 9, 1899.

Type Locality.—México, probably in Veracruz. *Range.*—Humid tropical forests of southern Veracruz, adjacent parts of extreme southeastern Oaxaca, Tabasco, eastern Chiapas, and perhaps extreme northwestern Guatemala, below 4,000 feet.

Sciurus aureogaster frumentor Nelson†*

1898. *Sciurus aureogaster frumentor* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 154, June 3, 1898. (See Davis, Journ. Mamm., vol. 25, No. 4, p. 384, Dec. 12, 1944.)

Type Locality.—Las Vigas, Veracruz, México. *Range.*—Mixed pine and oak forests of Upper Austral Zone on east and north base of Cofre de Perote and adjacent eastern slope of Cordillera near Las Vigas, Veracruz. Vertical range, 6,000 to 8,000 feet.

Sciurus poliopus poliopus Fitzinger*

1867. *[Sciurus variegatus] poliopus* Fitzinger, Sitzb. Akad. Wiss. Wien, vol. 55, Abth. 1, p. 478, March 1867.

1898. *Sciurus wagneri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 453, Nov. 10, 1898. (Substitute for the preoccupied *albipes* Wagner and *varius* Wagner.)

1899. *Sciurus poliopus* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 46, May 9, 1899.

Type Locality.—Cerro San Felipe, Oaxaca, México. *Range.*—Pine and oak forests of Transition and Boreal Zones on mountains north, east, and south of Valley of Oaxaca, México. Vertical range, 7,500 to 11,000 feet.

Sciurus poliopus hernandezi Nelson†*

1898. *Sciurus albipes quercinus* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 150, June 3, 1898. (Not [*Sciurus*] *quercinus* Erxleben, Systema regni animalis, p. 432, 1777.)

1898. [*Sciurus albipes*] *hernandezi* Nelson, Science, new ser., vol. 8, p. 783, Dec. 2, 1898. (Substitute for *quercinus* Nelson.)

1899. *Sciurus poliopus hernandezi* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 48, May 9, 1899.

Type Locality.—Mountains 15 miles west of Oaxaca, State of Oaxaca, México. *Range.*—Pine and oak forests of Transition and Boreal Zones on mountains west of Valley of Oaxaca and thence to Lower Sonoran Zone in southern Puebla and southeastern Guerrero, México.

Sciurus poliopus perigrinator Nelson†*

1904. *Sciurus poliopus perigrinator* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 149, Oct. 6, 1904.

Type Locality.—Piaxtla, Puebla, México.

Sciurus poliopus nemoralis Nelson†*

1898. *Sciurus albipes nemoralis* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 151, June 3, 1898.

1899. *Sciurus poliopus nemoralis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 50, May 9, 1899.

Type Locality.—Pátzcuaro, Michoacán, México. *Range.*—Pine and oak forests of Transition and Boreal Zones, from Volcán de Toluca, State of México, to Nahuatzen, Michoacán. Vertical range, 7,000 to 12,000 feet.

Sciurus poliopus senex Nelson†*

1904. *Sciurus poliopus senex* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 148, Oct. 6, 1904.

Type Locality.—La Salada, 40 miles south of Uruapan, southern Michoacán, México.

Sciurus poliopus cervicalis J. A. Allen*

1890. *Sciurus cervicalis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 183, Dec. 10, 1890.

1899. *Sciurus poliopus cervicalis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 51, May 9, 1899.

Type Locality.—Hacienda San Marcos, Tonila, Jalisco, México. *Range.*—Pine and oak forests of Upper Austral and Boreal Zones of El Nevado de Colima, Jalisco, and thence north along high mountains to Ameca, Jalisco, and east into western Michoacán. Vertical range, 6,000 to 12,000 feet; sporadically down to 4,000 feet.

Sciurus poliopus colimensis Nelson†*

1898. *Sciurus albipes colimensis* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 152, June 3, 1898.

1899. *Sciurus poliopus colimensis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 52, May 9, 1899.

Type Locality.—Hacienda Magdalena, Colima, México. *Range.*—Arid tropical coast region in State of Colima, western México, below 2,000 feet.

Sciurus poliopus effugius Nelson†*

1898. *Sciurus albipes effugius* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 152, June 3, 1898.

1899. *Sciurus poliopus effugius* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 54, May 9, 1899.

Type Locality.—High mountains west of Chilpancingo, Guerrero, México. *Range.*—Pine and oak forests of Transition and Boreal Zones along summit of Cordillera in southwestern Guerrero. Vertical range, 7,500 to 9,500 feet.

Sciurus poliopus tepicanus J. A. Allen

1906. *Sciurus poliopus tepicanus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 243, July 25, 1906.

Type Locality.—Rancho Palo Amarillo, near Amatlán de Cañas, Nayarit, México. Altitude, 5,000 feet.

Sciurus yucatanensis yucatanensis J. A. Allen†*

1877. [*Sciurus carolinensis*] var. *yucatanensis* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 705, August 1877.

1884. *Sciurus carolinensis yucatanensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., circ. 29), p. 595, Nov. 29, 1884.

1897. *Sciurus yucatanensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 5, Feb. 23, 1897.

Type Locality.—Mérida, Yucatán, México. *Range.*—Arid tropical forests of Peninsula of Yucatán.

Sciurus yucatanensis baliolus Nelson†*

1901. *Sciurus yucatanensis baliolus* Nelson, Proc. Biol. Soc. Washington, vol. 14, p. 131, August 9, 1901.

Type Locality.—Apazote, Campeche, México. *Range.*—Yucatán Peninsula biotic province. Recorded also from Belize and El Cayo, British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. No. 26, p. 24, July 15, 1935).

Sciurus yucatanensis phaeopus Goodwin

1932. *Sciurus yucatanensis phaeopus* Goodwin, Amer. Mus. Nov., No. 574, p. 1, Oct. 22, 1932.

Type Locality.—Secanquim, Alta Verapaz, about 50 miles east of Cobán, Guatemala. Altitude, 1,600 feet. *Range.*—Humid tropical forest region in central and southeastern Guatemala at about 1,500 feet elevation (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 27, Dec. 12, 1934).

Sciurus colliaei colliaei Richardson*

1839. *Sciurus colliaei* Richardson, *in* Beechey, The zoology of Captain Beechey's voyage . . . in His Majesty's ship *Blossom* . . . . p. 8.

1899. *Sciurus colliaei* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 58, May 9, 1899.

Type Locality.—San Blas, Nayarit, México. *Range.*—Arid tropical lowlands and lower slopes of adjacent mountains from northern border of Nayarit south to Bay of Banderas, below 2,500 feet.

Sciurus colliaei nuchalis Nelson†*

1899. *Sciurus colliaei nuchalis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 59, May 9, 1899.

Type Locality.—Manzanillo, Colima, México. *Range.*—Arid tropical lowlands from border of Michoacán north along coast to Bay of Banderas, Jalisco, and inland to more heavily wooded mountains near San Sebastián, Jalisco, below 3,000 feet.

Sciurus truei Nelson†*

1899. *Sciurus truei* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 61, May 9, 1899.

Type Locality.—Camoa, Río Mayo, Sonora, México. *Range.*—Oak forests of arid Lower Sonoran Zone in southern Sonora as far north as San Javier (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 38, Feb. 15, 1938) and northern Sinaloa, México.

Sciurus sinaloensis Nelson*

1899. *Sciurus sinaloensis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 60, May 9, 1899.

Type Locality.—Mazatlán, Sinaloa, México. *Range.*—Arid Tropical Zone in southern and central Sinaloa, below 2,500 feet.

Sciurus nelsoni nelsoni Merriam†*

1893. *Sciurus nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 144, Dec. 29, 1893.

Type Locality.—Huitzilac, Morelos, México. *Range.*—Oak and pine forests of Transition and Boreal Zones in mountains on south and west sides of Valley of México, and south side of Valley of Toluca, in Distrito Federal and States of México and Morelos. Vertical range, 8,000 to 12,000 feet.

Sciurus nelsoni hirtus Nelson†*

1898. *Sciurus nelsoni hirtus* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 153, June 3, 1898.

Type Locality.—Tochimilco, Puebla, México. *Range.*—Oak and pine forests of Transition and Boreal Zones on Mounts Popocatepetl and Iztaccíhuatl, in States of México, Puebla, and Morelos. Vertical range, 8,000 to 12,000 feet.

Sciurus socialis socialis Wagner*

1837. *Sciurus socialis* Wagner, Abhandl. Bayerisch. Akad. Wiss., München, math.-phys. Cl. vol. 2, p. 504.

1899. *Sciurus socialis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 62, May 9, 1899.

Type Locality.—Vicinity of Tehuantepec City, Oaxaca, México. *Range.*—Arid Tropical Zone lowland forests along Pacific coast from Puerto Angel, Oaxaca, south to Tonalá and Tuxtla, Chiapas, México, and up river valley to Nentón, Guatemala, below 3,000 feet.

Sciurus socialis cocos Nelson†*

1898. *Sciurus socialis cocos* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 155, June 3, 1898.

Type Locality.—Acapulco, Guerrero, México. *Range.*—Arid Tropical Zone lowlands of Pacific coast from Acapulco, Guerrero, south to Jamiltepec, Oaxaca, below 1,500 feet.

Sciurus socialis littoralis Nelson†*

1907. *Sciurus socialis littoralis* Nelson, Proc. Biol. Soc. Washington, vol. 20, p. 87, Dec. 11, 1907.

Type Locality.—Puerto Ángel, Oaxaca, México.

Sciurus griseoflavus griseoflavus (Gray)*

1867. *Macroxus griseoflavus* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 427, December 1867.

1878. *Sciurus griseoflavus* Alston, Proc. Zool. Soc. London, 1878, pt. 3, p. 660, September 1878.

1884. *Sciurus griseoflavus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

Type Locality.—Guatemala. *Range.*—Oak and pine forests of Transition and Boreal Zones in central and northwestern Guatemala and adjacent high mountains in southeastern Chiapas, México.

Sciurus griseoflavus chiapensis Nelson†*

1899. *Sciurus griseoflavus chiapensis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 69, May 9, 1899.

Type Locality.—San Cristóbal, Chiapas, México. *Range.*—Pine and oak forests of Transition and Boreal Zones in mountains of central Chiapas. Vertical range, 7,500 to 9,500 feet.

Sciurus variegatoides[78] **variegatoides** Ogilby*

1839. *Sciurus variegatoides* Ogilby, Proc. Zool. Soc. London, 1839, pt. 7, p. 117, December 1839.

1899. *Sciurus variegatoides* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 79, May 9, 1899.

Type Locality.—El Salvador, west coast of Central America. *Range.*—From Pacific coast of southern El Salvador throughout Departments of La Unión, San Miguel, and Usulatán (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 8, Sept. 4, 1937).

Sciurus variegatoides bangsi Dickey*

1928. *Sciurus variegatoides bangsi* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 7, Feb. 1, 1928.

Type Locality.—Barra de Santiago, Ahuachapán, El Salvador. *Range.*—Western El Salvador from Department of Chalatenango south and west to seacoast in Department of Ahuachapán, possibly ranging into southern Guatemala (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 11, Sept. 4, 1937).

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[78] Races of *Sciurus variegatoides* revised by Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, pp. 7–39, Sept. 4, 1937.

Sciurus variegatoides goldmani Nelson†*

1898. *Sciurus goldmani* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 149, June 3, 1898.

1928. *Sciurus variegatoides goldmani* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 8, Feb. 1, 1928.

Type Locality.—Huehuetán, Chiapas, México. *Range.*—Arid Tropical Zone forests of southeastern Chiapas, México, and of western coast of Guatemala at altitudes ranging from sea level to about 3,500 feet elevation (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 27, Dec. 12, 1934).

Sciurus variegatoides managuensis Nelson†*

1898. *Sciurus boothiae managuensis* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 150, June 3, 1898.

1937. *Sciurus variegatoides managuensis* Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 17, Sept. 4, 1937.

Type Locality.—Río Managua [=Río Motagua, near Lake Izabal], Izabal, Guatemala. *Range.*—Department of Izabal, and probably Zacapa, in eastern Guatemala (Harris, loc. cit.).

Sciurus variegatoides boothiae Gray*

1843. *Sciurus boothiae* Gray, List of . . . Mammalia in the . . . British Museum, p. 139.

1937. *Sciurus variegatoides boothiae* Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 12, Sept. 4, 1937.

Type Locality.—Honduras (specimens from San Pedro Sula, Cortés, are regarded as typical by Nelson, Proc. Washington Acad. Sci., vol. 1, p. 77, May 9, 1899). *Range.*—Mountains on border of central parts of Honduras and Nicaragua, and San Pedro Sula, Honduras (Harris, loc. cit.).

Sciurus variegatoides underwoodi Goldman†*

1932. *Sciurus boothiae underwoodi* Goldman, Journ. Washington Acad. Sci., vol. 22, No. 10, p. 275, May 19, 1932.

1937. *Sciurus variegatoides underwoodi* Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 9, Sept. 4, 1937.

Type Locality.—Monte Redondo, about 30 miles northwest of Tegucigalpa, Francisco Morazán, Honduras. Altitude, 5,100 feet. *Range.*—Highlands of central Honduras, northern Nicaragua (Harris, loc. cit.), and extreme northwestern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 360, Dec. 31, 1946).

Sciurus variegatoides adolphei (Lesson)*

1842. *Macroxus adolphei* Lesson, Nouveau tableau du régne animal, . . . mammifères, p. 112.

1899. *Sciurus adolphei* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 73, May 9, 1899.

?1905. *Sciurus boothiae annalium* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 16, p. 309, September 1905. ("Honduras." See Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 27, Dec. 12, 1934. For status see Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 17, Sept. 4, 1937.)

1920. *Sciurus variegatoides adolphei* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 136, Apr. 26, 1920.

Type Locality.—Realejo, Chinandega, Nicaragua. *Range.*—Known only from Corinto and Realejo on west coast of Nicaragua and from Volcán Chinandega (Harris, op. cit., p. 16).

Sciurus variegatoides belti Nelson†*

1899. *Sciurus boothiae belti* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 78, May 9, 1899.

1937. *Sciurus variegatoides belti* Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 13, Sept. 4, 1937.

Type Locality.—Escondido River, 50 miles above Bluefields, Zelaya, Nicaragua. *Range.*—Eastern slopes of mountains of Honduras and Nicaragua to Atlantic coast, including approximately entire eastern halves of these countries (Harris, loc. cit.).

Sciurus variegatoides dorsalis Gray*

1849. *Sciurus dorsalis* Gray, Proc. Zool. Soc. London, 1848, pt. 16, p. 138, June 1, 1849.

1899. *Sciurus adolphei dorsalis* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 74, May 9, 1899.

1920. *Sciurus variegatoides dorsalis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 136, Apr. 24, 1920.

Type Locality.—"Erroneously given as Carácas, Venezuela." (Specimens from Liberia, Guanacaste, Costa Rica, are regarded as typical by Nelson, loc. cit.) *Range.*—Southwestern Nicaragua and northwestern Costa Rica from Lake Managua to Puntarenas, and from Pacific coast eastward to summit of Sierra Tilarán, Costa Rica. In Costa Rica this form is found throughout the Province of Guanacaste (except in extreme southern end of Nicoya Peninsula) and also in northern coastal region of Province of Puntarenas south to Chomes (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 20, Sept. 4, 1937).

Sciurus variegatoides atrirufus Harris

1930. *Sciurus adolphei atrirufus* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 219, p. 2, Oct. 15, 1930.

Type Locality.—Tambor, Nicoya Peninsula, Puntarenas, Costa Rica. *Range.*—Known only from vicinity of Tambor, a small settlement at sea level on Bay of Ballena at southeast extremity of Nicoya Peninsula (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 19, Sept. 4, 1937).

Sciurus variegatoides austini Harris

1933. *Sciurus variegatoides austini* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 266, p. 1, June 28, 1933. (Regarded as identical with *rigidus* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 356, Dec. 15, 1952.)

Type Locality.—Las Agujas, Puntarenas, Costa Rica. *Range.*—Known only from vicinity of Las Agujas, a small settlement on a sandy peninsula with cocoanut palms and mangrove trees, 30 miles south of city of Puntarenas, Costa Rica (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 18, Sept. 4, 1937).

Sciurus variegatoides rigidus Peters*

1863. *Sciurus rigidus* Peters, Monatsb. Preuss. Akad. Wiss., Berlin, 1863, p. 652.

1930. *Sciurus a[dolphei] rigidus* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 219, p. 1, Oct. 15, 1930.

1937. *Sciurus variegatoides rigidus* Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 22, Sept. 4, 1937.

Type Locality.—San José, San José, Costa Rica. *Range.*—Mountains and valleys of central Costa Rica from Puntarenas east to Juan Viñas, and from Liberia and Zarcero in the north to Cartago in the south, and possibly through Cordillera de Talamanca into Panamá (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 22, Sept. 4, 1937).

Sciurus variegatoides thomasi Nelson†*

1899. *Sciurus thomasi* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 71, May 9, 1899.

1937. *Sciurus variegatoides thomasi* Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 24, Sept. 4, 1937.

Type Locality.—Talamanca, Limón, Costa Rica. *Range.*—Humid Tropical Zone forests of eastern Costa Rica, probably from border of Nicaragua to Panamá, westward in the south to Talamanca, and in the north to Santa Clara, Alajuela (Harris, loc. cit.).

Sciurus variegatoides melania (Gray)*

1867. *Macroxus melania* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 425, December 1867.

1902. *Sciurus melania* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 22, April 1902.

1920. *Sciurus variegatoides melania* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 136, Apr. 24, 1920.

Type Locality.—Point Burica, Puntarenas, Costa Rica. *Range.*—Pacific slopes of mountains, coastal plains, and islands of western Panamá and adjacent parts of Costa Rica (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 25, Sept. 4, 1937).

Sciurus variegatoides helveolus Goldman†*

1912. *Sciurus variegatoides helveolus* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 3, Feb. 19, 1912.

Type Locality.—Corozal, Canal Zone, Panamá. *Range.*—Pacific coastal region of Panamá from Canal Zone westward to vicinity of Santiago (Harris, Univ. Michigan Mus. Zool. Misc. Publ. 38, p. 26, Sept. 4, 1937).

Subgenus HESPEROSCIURUS Nelson

1899. *Hesperosciurus* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 27, May 9, 1899. (Type, *Sciurus griseus* Ord.)

Sciurus griseus griseus Ord*

1818. *Sciurus griseus* Ord, Journ. Phys. Chim. Hist. Nat. et Arts, Paris, vol. 87, p. 152.

1884. *Sciurus fossor* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1894. *Sciurus griseus* Rhoads, Amer. Nat., vol. 28, p. 525, June 1894.

Type Locality.—The Dalles, Wasco County, Oreg. *Range.*—In California, through Sierra Nevada and that portion of coast district north of San Francisco Bay; recorded north from Greenhorn Mountains and Kiavah Mountain, in Kern County, through Lassen and Shasta regions to Oregon line; thence westerly and south, west of Sacramento Valley and chiefly east of redwood belt, to Mount Tamalpais and vicinity, in Marin County, and near Vacaville, Solano County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 134, Sept. 26, 1933); Transition Zone forests of western Oregon on both sides of Cascade Range (V. Bailey, North Amer. Fauna No. 55 (June), p. 117, Aug. 29, 1936); and in Washington on both sides of Cascades, from Columbia River on south northward to Lake Chelan east of mountains and to projecting fingers of Puget Sound on west side (Scheffer, Murrelet, vol. 6, No. 2, p. 40, May 1925).

Sciurus griseus anthonyi Mearns†*

1897. *Sciurus fossor anthonyi* Mearns, Preliminary diagnoses of new mammals of the genera *Sciurus, Castor, Neotoma,* and *Sigmodon,* from the Mexican border of the United States, p. 1, Mar. 5, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 501, Jan. 19, 1898.)

1907. *Sciurus griseus anthonyi* Mearns, U. S. Nat. Mus. Bull. 56, p. 264, Apr. 13, 1907.

Type Locality.—Campbell's Ranch, Laguna Mountains, San Diego County, Calif. *Range.*—Mountains of southern California west of deserts, from near Mexican boundary northwest to vicinity of Mount Pinos, Ventura County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 135, Sept. 26, 1933).

Sciurus griseus nigripes Bryant*

1889. *Sciurus fossor nigripes* Bryant, Proc. California Acad. Sci., ser. 2, vol. 2, p. 25, June 20, 1889.

1894. [*Sciurus*] *griseus nigripes* Rhoads, Amer. Nat., vol. 28, p. 525, June 1894.

Type Locality.—Coast region of San Mateo County, Calif. *Range.*—Coast belt south of San Francisco Bay, from north-central San Mateo County south to extreme northwestern San Luis Obispo County; extends east in Santa Clara County to Mount Hamilton Range (Scott Creek, etc.), but apparently absent from Mount Diablo and mountains east of Salinas Valley (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 135, Sept. 26, 1933).

Subgenus OTOSCIURUS Nelson

1899. *Otosciurus* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 28, May 9, 1899. (Type, *Sciurus aberti* Woodhouse.)

Sciurus aberti aberti Woodhouse†*

1853. *Sciurus dorsalis* Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 6, p. 110. (Preoccupied by *Sciurus dorsalis* Gray, 1848.)

1853. *Sciurus aberti* Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 6

1852–1853), p. 220. (Substitute for *Sciurus dorsalis* Woodhouse, 1853.)
1884. *Sciurus aberti* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

Type Locality.—San Francisco Mountain, Coconino County, Ariz. *Range.*—West-central New Mexico, in yellow pine zone of mountains north of Silver City, both sides of Black or Mimbres Range, east base of Mogollon Peaks, Frisco, and Datil Ranges, and Magdalena Mountains (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 68, Mar. 1, 1932); westward over plateau country of Arizona south of Grand Canyon.

Sciurus aberti chuscensis Goldman†*

1931. *Sciurus aberti chuscensis* Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 133, Oct. 17, 1931.

Type Locality.—Chusca Mountains, McKinley County, northwestern New Mexico. *Range.*—Yellow pine forests of Transition Zone from 7,500 to 9,000 feet altitude on high mountains of northeastern Arizona and northwestern New Mexico.

Sciurus aberti ferreus True†*

1894. *Sciurus aberti concolor* True, Diagnoses of new North American mammals, p. 1, Apr. 26, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 241, Nov. 15, 1894. Not *Sc*[*iurus*] *concolor* Blyth, 1855.)
1900. [*Sciurus aberti*] *ferreus* True, Proc. Biol. Soc. Washington, vol. 13, p. 183, Nov. 30, 1900. (Substitute for *concolor* True.)

Type Locality.—Loveland, Larimer County, Colo. *Range.*—Foothill districts of eastern Colorado, chiefly in yellow pines from 7,000 to 8,000 feet, as far north as near Livermore, Larimer County; thence south along foothills and Arkansas–Platte Divide north of Colorado Springs; Platte Canyon region; eastern slope of Sangre de Cristo Range as far north as Westcliffe; and reported to occur on San Luis side of Sangre de Cristo Range, and Medano and Mosca Passes (Warren, The mammals of Colorado, p. 153, 1942).

Sciurus aberti navajo Durrant and Kelson

1947. *Sciurus aberti navajo* Durrant and Kelson, Proc. Biol. Soc. Washington, vol. 60, p. 79, July 2, 1947.

Type Locality.—One mile east of Kigalia Ranger Station, 30 miles west of Blanding, Natural Bridges National Monument Road, San Juan County, Utah. Altitude, 8,000 feet. *Range.*—Recorded also from Verdure, east flank of Abajo Mountains, San Juan County, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 11, Feb. 15, 1951).

Sciurus aberti mimus Merriam†*

1904. *Sciurus aberti mimus* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 130, June 9, 1904.

Type Locality.—Hall Peak, at south end of Cimarron Mountains, Mora County, N. Mex. *Range.*—Yellow pine forests on lower slopes of San Juan and La Plata Mountains, in Conejos, Archuleta, Montezuma, and Dolores Counties, Colorado (Warren, The mammals of Colorado, p. 152, 1942); northern New Mexico in yellow pine forests of Sangre de Cristo, San Juan, and Jemez Mountains and

Mount Taylor (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 72, Mar. 1, 1932).

Sciurus aberti barberi J. A. Allen*

1904. *Sciurus aberti barberi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 207, May 28, 1904.

Type Locality.—Colonia García, Chihuahua, México. *Range.*—Mountains of northeastern Sonora and northwestern Chihuahua, México.

Sciurus aberti durangi Thomas*

1893. *Sciurus aberti durangi* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 50, January 1893.

1899. *Sciurus durangi* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 85, May 9, 1899.

1946. *Sciurus aberti durangi* Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 353, Feb. 12, 1946.

Type Locality.—Ciudad ranch, 100 miles west of city of Durango, Durango, México. *Range.*—Pine forests of Transition and lower border of Boreal Zones in Sierra Madre, western Durango and Chihuahua, México. Vertical range, 7,000 to 11,000 feet.

Sciurus aberti phaeurus J. A. Allen

1904. *Sciurus aberti phaeurus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 205, May 28, 1904.

Type Locality.—La Cienega, northwest Durango, México. *Range.*—Northwestern Durango.

Sciurus kaibabensis Merriam†*

1904. *Sciurus kaibabensis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 129, June 9, 1904.

Type Locality.—Bright Angel Creek, top of Kaibab Plateau, north side of Grand Canyon of Colorado, Coconino County, Ariz. *Range.*—Yellow pine forests of Kaibab Plateau, an area about 40 miles long and 20 miles wide, on north side of Grand Canyon of Colorado River, Ariz. (Goldman, Journ. Mamm., vol. 9, No. 2, p. 127, May 9, 1928).

Subgenus PARASCIURUS [79] Trouessart

1880. *Parasciurus* Trouessart, Le Naturaliste, vol. 2, No. 37, p. 292, October 1880. (Type, *Sciurus niger* Linnaeus.)

1899. *Araeosciurus* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 29, May 9, 1899. (Type, *Sciurus oculatus* Peters.)

Sciurus niger [80] **niger** Linnaeus* (fox-squirrel)

1758. [*Sciurus*] *niger* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 64. (Based on Catesby's black fox squirrel.)

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[79] Revised by Nelson (under the names *Parasciurus* and *Araeosciurus*, Proc. Washington Acad. Sci., vol. 1, pp. 88–98, May 9, 1899).

[80] Forms occurring in the United States revised by Osgood, Proc. Biol. Soc. Washington, vol. 20, pp. 45–46, Apr. 18, 1907. Southern forms of *Sciurus niger* reviewed by Lowery and Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 9, pp. 153–172, Mar. 4, 1942.

1758. [*Sciurus*] *cinereus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 64 (in part; gray phase of *niger*).

1778. [*Sciurus*] *vulpinus* Gmelin, Caroli a Linné systema naturae . . ., ed. 13, vol. 1, p. 147. (Based on fox squirrel of Lawson and cat squirrel of Pennant.)

1802. *Sciurus capistratus* Bosc, Bull. Soc. Philom. Paris No. 67 (vol. 3, No. 7), p. 145, September–October, 1802. (Charleston, S. C.)

1884. *Sciurus niger niger* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884. (Part.)

Type Locality.—Probably southern South Carolina. *Range.*—Southern Virginia (Handley and Patton, Wild mammals of Virginia, p. 154, 1947) south to northern Florida (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 114, 1937), and southeastern Alabama.

Sciurus niger avicennia A. H. Howell†*

1919. *Sciurus niger avicennia* A. H. Howell, Journ. Mamm., vol. 1, No. 1, p. 37, Nov. 28, 1919.

Type Locality.—Everglades, Collier County, Fla. *Range.*—Pine and cypress timbered tracts and mangrove swamps, from Marco Pass, Collier County, to Cape Sable and around southern end of peninsula to shore of Biscayne Bay, Dade County, on east coast.

Sciurus niger bachmani Lowery and Davis*

1942. *Sciurus niger bachmani* Lowery and Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 9, p. 156, Mar. 4, 1942. (Regarded as a synonym of *texianus* by Osgood, Journ. Mamm., vol. 26, No. 4, p. 442, Feb. 12, 1946.)

Type Locality.—Ten miles northwest of Enon, Washington Parish, La. *Range.*—Northern Georgia (possibly a small portion of western South Carolina), all of Alabama (except southeastern part), eastern Tennessee, Mississippi (except extreme western part), and eastern Louisiana east of Mississippi River and north of Lakes Maurepas and Pontchartrain.

Sciurus niger subauratus Bachman*

1839. *Sciurus subauratus* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 87, Feb. 7, 1839.

1839. *Sciurus auduboni* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 97, Feb. 7. 1839. (New Orleans; melanistic specimen of *subauratus.*)

1942. *Sciurus niger subauratus* Lowery and Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 9, p. 166, Mar. 4, 1942.

Type Locality.—Iberville Parish, La. (restricted by Lowery and Davis, loc. cit.). *Range.*—Northeastern, central-eastern, and south-central Louisiana where it is confined almost entirely to alluvial lands of Mississippi, Tensas, Ouachita, and Atchafalaya River systems (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 240, Nov. 22, 1943); southeastern Arkansas and Yazoo River delta of northwestern Mississippi (Lowery and Davis, loc. cit.).

Sciurus niger ludovicianus Custis*

1806. *Sciurus ludovicianus* Custis, Philadelphia Med. Phys. Journ., vol. 2, pt. 2, p. 47.

1839. *Sciurus texianus* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 86, Feb. 7, 1839. ("Mexico." Specimen No. 204a, British Mus. (Nat. Hist.), regarded as type by Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 47, Apr. 18, 1907, and in essential agreement with specimens from coast of Louisiana and Mississippi. See also, Lowery and Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 9, pp. 157–161, Mar. 4, 1942; and Osgood, Journ. Mamm., vol. 26, No. 4, pp. 441–442, Feb. 12, 1946.)

1877. [*Sciurus niger*] var. *ludovicianus* J. A. Allen, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 718, August 1877. (Part.)

1884. *Sciurus niger ludovicianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884. (Part.)

Type Locality.—Red River, La. (restricted to Natchitoches Parish by Lowery and Davis, loc. cit.). *Range.*—Western Louisiana, eastern Texas, and southwestern Arkansas (Lowery, Occ. Pap. Mus. Zool. Louisiana Stat. Univ. No. 13, p. 240, Nov. 22, 1943).

Sciurus niger limitis Baird†*

1855. *Sciurus limitis* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 331, April 1855.

1896. *Sciurus ludovicianus limitis* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 149, Dec. 28, 1896.

1907. *S*[*ciurus*] *n*[*iger*] *limitis* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 45, Apr. 18, 1907.

Type Locality.—Devil's River, Valverde County, Tex. *Range.*—Central Texas, north to near Red River, and from Colorado and Comanche counties west to Pecos River (Lowery and Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 9, p. 171, Mar. 4, 1942). (See also Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 355, Dec. 15, 1952.)

Sciurus niger rufiventer É. Geoffroy-Saint-Hilaire*

1803. *Scirus rufiventer* É. Geoffroy-Saint-Hilaire, Catalogue des mammifères du Museum National d'Histoire Naturelle, Paris, p. 176.

1820. *Sciurus ruber* Rafinesque, Annals of nature . . . , vol. 1, p. 4. (Missouri Territory.)

1823. *Sciurus macroura* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 1, p. 115. (Northeastern Kansas. Not *Sciurus macrourus* Pennant, 1769.)

1825. *Sciurus magnicaudatus* Harlan, Fauna Americana, . . . , p. 178. (Substitute name for *macroura* Say.)

1851. *Sciurus rubicaudatus* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, pl. 55; text, vol. 2, p. 30, 1851. (Illustration based on specimen from Illinois; another specimen from Kentucky, possibly near Mammoth Cave.)

1851. *Sciurus sayii* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, pl. 89; text, vol. 2, p. 274, 1851. (Bottomlands of Wabash, Illinois, and Missouri Rivers, and Michigan.)

1907. *Sciurus niger rufiventer* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 44, Apr. 18, 1907.

Type Locality.—Mississippi Valley, exact locality not known, but probably between southern Illinois and central Tennessee (Osgood, loc. cit.). *Range.*—Mississippi Valley from western Tennessee, northern Arkansas (Lowery and Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 9, p. 163, Mar. 4, 1942), and northeastern Texas (Strecker and Williams, Journ. Mamm., vol. 10, No. 3. p. 259, Aug. 10, 1929), north through eastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, p. 113, July 1939), Kansas west to, or beyond, long. 90° W. (Black, Kansas State Board Agric. Thirtieth Biennial Rep., 1935–1936, p. 179, 1937), Nebraska west to long. 98° W. (Swenk, Studies Zool. Lab. Univ. Nebraska No. 89, p. 24, September 1908), and eastern South Dakota to Clearwater and Pine Counties, Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 80, 1945), northwestern Wisconsin (Schorger, Journ. Mamm., vol. 28, No. 4, p. 401, Dec. 8, 1947), Lower Peninsula of Michigan (Burt, Mammals of Michigan, p. 194, 1946), northern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 139, Sept. 11, 1942), and Chautauqua County in western New York (Hamilton, The mammals of eastern United States, . . . , p. 233, 1943).

Sciurus niger vicinus Bangs*

1896. *Sciurus ludovicianus vicinus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 150, Dec. 28, 1896.

1944. *Sciurus niger vicinus* E. L. Poole, Journ. Mamm., vol. 25, No. 3, p. 316, Sept. 8, 1944.

Type Locality.—White Sulphur Springs, Greenbrier County, W. Va. *Range.*—Formerly most of Connecticut, except coniferous forests of highlands in northeast and northwest (Goodwin, Connecticut Geol. Nat. Hist. Surv. Bull. 53 (1935), p. 110, Mar. 24, 1936); formerly from central New York (Bangs, loc. cit.) south through south-central Pennsylvania, western Maryland, eastern West Virginia, western Virginia (Handley and Patton, Wild mammals of Virginia, p. 155, 1947), and in Appalachian Mountains to western North Carolina (Bangs, loc cit.). Introduced at Boise, Idaho (Marshall, Journ. Mamm., vol. 22, No. 1, p. 86, Feb. 14, 1941).

Sciurus niger neglectus (Gray)*

1867. *Macroxus neglectus* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 20, p. 425, December 1867.

1884. *Sciurus niger cinereus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1900. *Sciurus ludovicianus neglectus* Nelson, Proc. Biol. Soc. Washington, vol. 13, p. 170, Oct. 31, 1900. (Part.)

1907. *S*[*ciurus*] *n*[*iger*] *neglectus* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 45, Apr. 18, 1907. (Part.)

1920. *Sciurus niger bryanti* H. H. Bailey, Bailey Mus. Libr. Nat. Hist., Newport News, Va., Bull. No. 1 [p. 1], Aug. 1, 1920. (Received in Washington, June 1923. Dorchester County, Md. Regarded by E. L. Poole, Journ. Mamm., vol. 25, No. 3, p. 316, Sept. 8, 1944, as identical with *neglectus*.)

Type Locality.—Wilmington, Newcastle County, Del. (see Nelson, loc. cit.). *Range.*—East of Chesapeake Bay in Delaware, Maryland, and Virginia; formerly in Chester County, Del., and Lancaster County, Pa. (E. L. Poole, loc. cit.).

Sciurus arizonensis arizonensis Coues†*

1867. *Sciurus arizonensis* Coues, Amer. Nat., vol. 1, No. 7, p. 357, September 1867.

1884. *Sciurus arizonensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

Type Locality.—Fort Whipple, Yavapai County, Ariz. *Range.*—River valleys of central and southeastern Arizona and southwestern New Mexico, mainly in Upper Sonoran Zone (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 74, Mar. 1, 1932).

Sciurus arizonensis catalinae Doutt*

1931. *Sciurus arizonensis catalinae* Doutt, Ann. Carnegie Mus., vol. 20, p. 271, June 6, 1931. (See Burt, Journ. Mamm., vol. 14, No. 2, p. 117, May 15, 1933.)

Type Locality.—Near Soldier Camp, Santa Catalina Mountains, Pima County, Ariz. Altitude, 8,000 feet. *Range.*—Santa Catalina Mountains, southeastern Arizona.

Sciurus arizonensis huachuca J. A. Allen*

1894. *Sciurus arizonensis huachuca* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 349, Dec. 7, 1894.

Type Locality.—Huachuca Mountains, southern Arizona. *Range.*—Pine and oak forests of Transition Zone, in northeastern Sonora, México, and Huachuca Mountains, southern Arizona.

Sciurus apache J. A. Allen*

1893. *Sciurus apache* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 29, Mar. 16, 1893.

Type Locality.—About 29 trail miles northeast of Nacori, on western slope of Sierra Nacori, Sierra Madre, eastern Sonora, México. Altitude, 6,300 feet. (See van Rossem, Journ. Mamm., vol. 17, No. 4, p. 417, Nov. 16, 1936.) *Range.*—Mixed oak and pine forests of Transition Zone in Sierra Madre of western Durango and Chihuahua, eastern Sonora, and northeastern Sinaloa, México; El Salto, southern Durango, north to San Luis Mountains, southwestern New Mexico (Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 72, Apr. 27, 1933).

Sciurus chiricahuae Goldman†*

1933. *Sciurus chiricahuae* Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 71, Apr. 27, 1933.

Type Locality.—Cave Creek, Chiricahua Mountains, Cochise County, Ariz. Altitude, 5,200 feet. *Range.*—Chiricahua Mountains, southeastern Arizona.

Sciurus alleni Nelson†*

1898. *Sciurus alleni* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 147, June 3, 1898.

Type Locality.—Monterrey, Nuevo León, México. *Range.*—Open pecan and other forests of Lower Sonoran Zone near Monterrey, Nuevo León, extending up to oak and pine forests of Transition Zone near Victoria and Miquihuana, Tamaulipas, México. Vertical range, 2,000 to 8,500 feet. Recorded also from Ojo de Agua and Cerro Potosí, Galeana, Nuevo León (Koestner, Great Basin

Nat., vol. 2, p. 10, Feb. 20, 1941), Río Ramos, Nuevo León (Davis, Journ. Mamm., vol. 25, No. 4, p. 385, Dec. 12, 1944), and Pendencia, San Luis Potosí (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 5, July 10, 1950).

Sciurus nayaritensis J. A. Allen*

1889. *Sciurus alstoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 167, Oct. 21, 1889. (Not of Anderson, 1878.)

1890. [*Sciurus*] *nayaritensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 2, p. VII (footnote), February 1890. (Substitute for *alstoni* Allen.)

Type Locality.—Sierra de Valparaiso, Zacatecas, México. *Range.*—Pine and oak forests of Transition Zone in Sierra Madre and outlying spurs of western Zacatecas, southern Durango, eastern Nayarit and southern Jalisco, México. Vertical range, 6,500 to 9,000 feet.

Sciurus oculatus oculatus Peters*

1863. *Sciurus oculatus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1863, p. 653.

1890. *Sciurus niger melanonotus* Thomas, Proc. Zool. Soc. London, 1889, pt. 1, p. 73, June 1890. (Las Vigas, Veracruz, México.)

1898. *Sciurus oculatus* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 149, June 3, 1898.

Type Locality.—México, probably near Las Vigas, Veracruz. *Range.*—Pine and oak forests of Transition and Boreal Zones in northern Puebla, western Veracruz (Cofre de Perote, Mount Orizaba), Hidalgo, and eastern Querétaro, México. Vertical range, 6,000 to 12,000 feet.

Sciurus oculatus tolucae Nelson†*

1898. *Sciurus oculatus tolucae* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 148, June 3, 1898.

Type Locality.—North slope of Volcán de Toluca, State of México, México. *Range.*—Pine and oak forests of Transition and Boreal Zones on tableland slope of Sierra Madre in State of México, from Volcán de Toluca north to border of Michoacán; also arid mountains of southern and western Querétaro, central and eastern Guanajuato, and southern San Luis Potosí, México. Vertical range, 7,500 to 12,000 feet.

Sciurus oculatus shawi Dalquest*

1950. *Sciurus oculatus shawi* Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 4, July 10, 1950.

Type Locality.—Rancho San Francisco, 38 kilometers east-southeast of city of San Luis Potosí, San Luis Potosí, México. *Range.*—Mountain forests of southern and central parts of State of San Luis Potosí.

Subgenus GUERLINGUETUS [81] Gray

1821. *Guerlinguetus* Gray, London Med. Repos., vol. 15, p. 304, April 1821. (Type, *Sciurus guerlinguetus* Gray=*Sciurus aestuans* Linnaeus.)

1915. *Mesosciurus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 34, p. 212, May 17, 1915. (Type, *Sciurus aestuans hoffmanni* Peters.)

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[81] Revised by Nelson under the name *Guerlinguetus*, Proc. Washington Acad. Sci., vol. 1, pp. 98–101, May 9, 1899.

Sciurus richmondi Nelson†*

1898. *Sciurus richmondi* Nelson, Proc. Biol. Soc. Washington, vol. 12, p. 146, June 3, 1898.

Type Locality.—Escondido River, 50 miles above Bluefields, Zelaya, Nicaragua. *Range.*—Dense Humid Tropical Zone forests of lowlands along Escondido River.

Sciurus granatensis hoffmanni Peters*

1863. *Sciurus aestuans* var. *hoffmanni* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1863, p. 654.

1884. *Sciurus aestuans rufoniger* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1899. *Sciurus aestuans hoffmanni* Nelson, Proc. Washington Acad. Sci. vol. 1, p. 98, May 9, 1899.

1920. *S[ciurus] hoffmanni* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 138, Apr. 24, 1920.

1947. *[Sciurus granatensis] hoffmanni* Hershkovitz, Proc. U. S. Nat. Mus., vol. 97, p. 7, Aug. 25, 1947.

Type Locality.—Costa Rica. (Probably Agua Caliente, San José, Costa Rica. See Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 9, Oct. 8, 1943.) *Range.*—Humid Tropical Zone forests of highlands of Costa Rica.

Sciurus granatensis chiriquensis Bangs*

1902. *Sciurus* (*Guerlinguetus*) *aestuans chiriquensis* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 22, April 1902. (Regarded as identical with *hoffmanni* by Harris Occ. Pap. Mus. Zool. Univ. Michigan No. 476, pp. 9–10, Oct. 8, 1943.)

1920. *Sciurus hoffmanni chiriquensis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 137, Apr. 24, 1920.

1947. *[Sciurus granatensis] chiriquensis* Hershkovitz, Proc. U. S. Nat. Mus., vol. 97 p. 7, Aug. 25, 1947.

Type Locality.—Divalá, Chiriquí, Panamá. *Range.*—From Azuero Peninsula, Panamá (Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 160, Aug. 31, 1937), north through Chiriquí and forested regions of both coasts of Costa Rica to San Carlos, Alajuela Province, and Santa Clara, Heredia Province (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 364, Dec. 31, 1946).

Sciurus granatensis choco Goldman†*

1913. *Sciurus varibilis choco* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 4, Feb. 28, 1913.

1920. *Sciurus gerrardi choco* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 139, Apr. 24, 1920.

Type Locality.—Cana (Santa Cruz de Cana), upper Rio Tuyra, Darién, eastern Panamá. Altitude, 3,500 feet. *Range.*—Darién region, Panamá.

Sciurus granatensis morulus Bangs*

1884. *Sciurus variabilis* True, Proc. U. S. Nat. Mus., vol. 7 (App. Circ. 29), p. 596, Nov. 29, 1884.

1900. *Sciurus variabilis morulus* Bangs, Proc. New England Zool. Club, vol. 2, p. 43, Sept. 20, 1900.

1920. *S[ciurus] g[errardi] morulus* Goldman, Smithsonian Misc. Coll. vol. 69, No. 5, p. 139, Apr. 24, 1920.

Type Locality.—Loma del León, Gatún Lake, Canal Zone, Panamá. *Range.*—Canal Zone.

Genus TAMIASCIURUS [82] Trouessart

1880. *Tamiasciurus* Trouessart, Le Naturaliste, vol. 2, No. 37, p. 292, October 1880. (Type, *Sciurus hudsonicus* Erxleben.)

Tamiasciurus hudsonicus hudsonicus (Erxleben) *

1777. [*Sciurus vulgaris*] *hudsonicus* Erxleben, Systema regni animalis . . . , vol. 1, p. 416.

1884. *Sciurus hudsonius hudsonius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884. (Part.)

1894. *Sciurus hudsonicus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 325, Nov. 7, 1894.

1923. *Tamiasciurus hudsonicus* Pocock, Proc. Zool. Soc. London, 1923, pt. 2, p. 213, July 6, 1923.

Type Locality.—Mouth of Severn River, Ontario, Canada (see A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 133, Aug. 22, 1936). *Range.*—Forested areas draining into Hudson Bay in southeastern Mackenzie and southern Keewatin Districts, Northwest Territories; northern, central, and eastern Manitoba south to northeastern Minnesota; Ontario from Manitoba border to west side of Hudson Bay and James Bay; and southwestern corner of Quebec; south to north shore of Lake Superior and Georgian Bay; intergrading with *ungavensis* southeast of James Bay, with *loquax* in upper Ottawa River Valley, and with *preblei* in northern Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 118, Jan. 24, 1947).

Tamiasciurus hudsonicus preblei A. H. Howell†*

1936. *Tamiasciurus hudsonicus preblei* A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 133, Aug. 22, 1936.

Type Locality.—Fort Simpson, Mackenzie District, Northwest Territories, Canada. *Range.*—Chiefly Athabaska–Mackenzie Valley and central and northern Yukon in Canada, and greater part of central Alaska; south to North Saskatchewan River, Saskatchewan, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 120, Jan. 24, 1947). Recorded north to John River Valley, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950).

Tamiasciurus hudsonicus kenaiensis A. H. Howell†*

1936. *Tamiasciurus hudsonicus kenaiensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 136, Aug. 22, 1936.

Type Locality.—Hope, Cook Inlet, Alaska. *Range.*—Kenai Peninsula and base of Alaska Peninsula; south to Yakutat Bay.

Tamiasciurus hudsonicus petulans (Osgood) †*

1900. *Sciurus hudsonicus petulans* Osgood, North Amer. Fauna No. 19, p. 27, Oct. 6, 1900.

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[82] Revised by J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, pp. 249–298, July 22, 1898; and R. T. Hatt, Roosevelt Wild Life Ann., vol. 2, No. 1, pp. 14–20, March 1929. For status, see Pocock, Proc. Zool. Soc. London, 1923, pt. 2, pp. 214, 237, July 6, 1923; Mossman, Lawlah, and Bradley, Amer. Journ. Anat., vol. 51, pp. 127–128, Sept. 15, 1932; Mossman, Trans. Wisconsin Acad. Sci. Arts Lett., vol. 32 (1940), p. 127, July 1941; and A. H. Howell, North Amer. Fauna No. 56 (April), p. 51, May 18, 1938.

1936. *Tamiasciurus hudsonicus petulans* A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 136, Aug. 22, 1936.

Type Locality.—Glacier, White Pass, southern Alaska. Altitude, 1,870 feet. *Range.*—Lynn Canal and White Pass region of northern part of Alaska Panhandle and closely adjacent parts of extreme northwestern British Columbia (Anderson, Nat. Canada Bull. 102 (1946), p. 119, Jan. 24, 1947).

Tamiasciurus hudsonicus picatus (Swarth) *

?1839. *Sciurus lanuginosus* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 101, Feb. 7, 1839. ("Northwest coast, near Sitka"=near Fort McLaughlin, Denny Island, British Columbia, Canada. See Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 44, Apr. 18, 1907. For status, see Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 120, Jan. 24, 1947.)

1921. *Sciurus hudsonicus picatus* Swarth, Journ. Mamm., vol. 2, No. 2, p. 92, May 2, 1921.

1936. *T[amiasciurus] h[udsonicus] picatus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 135, Aug. 22, 1936.

Type Locality.—Kupreanof Island, 25 miles south of Kake Village, at southern end of Keku Straits, southeastern Alaska. *Range.*—Mainland and islands near coast of southeastern Alaska from Lynn Canal southward along northwestern coast of British Columbia for an undetermined distance, intergrading in the north with *petulans* and in the south with *vancouverensis* (Anderson, loc. cit.). Recorded by Swarth (Journ. Mamm., vol. 2, No. 2, p. 93, May 2, 1921) from Kupreanof, Kuiu, Mitkof, Wrangell, Zarembo, Etolin, Revillagigedo, and Sergief Islands, and on adjacent mainland from mouth of Taku River south to mouth of Skeena River.

Tamiasciurus hudsonicus vancouverensis (J. A. Allen) *

1890. *Sciurus hudsonius* [sic] *vancouverensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 165, Nov. 14, 1890. (Regarded as a distinct species by Osgood, North Amer. Fauna No. 10, p. 27, Oct. 6, 1900.)

1940. *Tamiasciurus hudsonicus vancouverensis* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 347, June 8, 1940.

Type Locality.—Duncan Station, Vancouver Island, British Columbia, Canada. *Range.*—The whole of Vancouver Island from Victoria to Cape Scott; also in typical form on some of islands northeast of Vancouver Island from outside of Bute Inlet (Small Gillard Island, Yuculta Rapids) north at least to Calvert Island; intergrading with *picatus* further north (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 121, Jan. 24, 1947.)

Tamiasciurus hudsonicus columbiensis A. H. Howell*

1936. *Tamiasciurus hudsonicus columbiensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 135, Aug. 22, 1936.

Type Locality.—Raspberry Creek, about 30 miles southeast of Telegraph Creek, northern British Columbia, Canada. *Range.*—Northern and central British Columbia (Alaska Highway) and southern Yukon, from vicinity of Lake Laberge, Yukon, south to Chilcotin River, British Columbia, and eastward to Banff and Jasper National Parks in Rocky Mountains of western Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 118, Jan. 24, 1947).

Tamiasciurus hudsonicus streatori (J. A. Allen) *

1898. *Sciurus hudsonicus streatori* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 267, July 22, 1898.

1936. *T*[*amiasciurus*] *h*[*udsonicus*] *streatori* A. H. Howell, Proc. Biol. Soc. Washington, vol. 49, p. 135, Aug. 22, 1936.

Type Locality.—Ducks, British Columbia, Canada. *Range.*—Northeastern Washington west to head of Lake Chelan (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 289, Apr. 9, 1948) and northward over central British Columbia, intergrading with *columbiensis* in central British Columbia and with *richardsoni* in southeastern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 121, Jan. 24, 1947).

Tamiasciurus hudsonicus richardsoni (Bachman) *

1839. *Sciurus richardsoni* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 100, Feb. 7, 1839.

1884. *Sciurus hudsonius* [sic] *richardsoni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1898. *Sciurus hudsonicus richardsonii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 265, July 22, 1898.

1939. *Tamiasciurus hudsonicus richardsoni* Davis, The Recent mammals of Idaho, p. 227, Apr. 5, 1939.

Type Locality.—Head of Big Lost River, Custer County, Idaho. (Restricted by Merriam, North Amer. Fauna No. 5, p. 50, July 30, 1891.) *Range.*—Western border of northern Montana (Bitterroot and Coeur d'Alene Mountains), central and northern Idaho (Lost River, Salmon River, Pahsimeroi, and Sawtooth Mountains), west to Powder River and Blue Mountains in eastern Oregon, and Blue Mountains in southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 289, Apr. 9, 1948); northward into West Kootenay district of British Columbia east of Columbia River (Creston, Yahk, Cranbrook, Newgate, Fernie), intergrading with *streatori* in vicinity of Trail and Rossland; in fairly typical form north of international boundary to Waterton Lakes National Park in extreme southwestern Alberta, intergrading with *columbiensis* to the northward of Crowsnest Pass, Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 120, Jan. 24, 1947).

Tamiasciurus hudsonicus ventorum (J. A. Allen) †*

1898. *Sciurus hudsonicus ventorum* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 263, July 22, 1898.

1939. *Tamiasciurus hudsonicus ventorum* Davis, The Recent mammals of Idaho, p. 229, Apr. 5, 1939.

Type Locality.—South Pass City, Wind River Mountains, Fremont County, Wyo. *Range.*—Southwestern Montana, northeast to Big Belt Mountains and west to Ruby Range in Madison County; western Wyoming, south through Yellowstone National Park and Absaroka and Wind River Mountains to southern Fremont County and southern Lincoln County; southeastern Idaho, west as far as Bannock Range and Malad Valley (Davis, loc. cit.); and northeastern Utah in mountains south to Mount Timpanogos, Utah County (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 15, Feb. 15, 1951).

Tamiasciurus hudsonicus wasatchensis Hardy†*

1950. *Tamiasciurus hudsonicus wasatchensis* Hardy, Proc. Biol. Soc. Washington, vol. 63, p. 13, Apr. 26, 1950.

Type Locality.—Spruce–fir area along Skyline Drive east of Mount Nebo, Juab County near Juab-Utah County Line, Utah. Altitude, about 10,000 feet. *Range.*—Fir and spruce belts of southern Wasatch Plateau of central Utah, including Sanpete and Emery Counties as well as Mount Nebo area of Utah and Juab Counties; intergrading northward with *ventorum* of northern Wasatch Mountains.

Tamiasciurus hudsonicus dixiensis Hardy*

1942. *Tamiasciurus fremonti dixiensis* Hardy, Proc. Biol. Soc. Washington, vol. 55, p. 87, June 25, 1942.

1950. *T[amiasciurus] h[udsonicus] dixiensis* Hardy, Proc. Biol. Soc. Washington, vol. 63, p. 14, Apr. 26, 1950.

Type Locality.—Near Further Water, Dixie National Forest, Pine Valley Mountains, Washington County, Utah. Altitude, about 9,500 feet. *Range.*—From Pahvant Mountains in eastern Millard County southwestward in north–south central mountain ranges and related high plateaus to Pine Valley Mountains, Washington County, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 14, Feb. 15, 1951).

Tamiasciurus hudsonicus mogollonensis (Mearns)*

1890. *S[ciurus] hudsonius mogollonensis* Mearns, Auk, vol. 7, p. 49, January 1890.

1890. *Sciurus fremonti mogollonensis* Merriam, North Amer. Fauna No. 3, p. 48, Sept. 11, 1890.

1898. *Sciurus fremonti neomexicanus* J. A. Allen†, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 291, July 22, 1898. (Rayado Canyon, Colfax County, N. Mex. Regarded as indistinguishable from *mogollonensis* by V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 75, Mar. 1, 1932.)

1942. *Tamiasciurus fremonti mogollonensis* Hill, Journ. Mamm., vol. 23, No. 1, p. 79, May 14, 1942.

1951. *T[amiasciurus] h[udsonicus] mogollonensis* Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 17, Feb. 15, 1951.

Type Locality.—Quaking Asp Settlment, between Stoneman Lake and Mormon Lake, near summit of Mogollon Mountains, Coconino County, Ariz. *Range.*—Higher mountains and plateaus of central and eastern Arizona, including Kaibab Plateau, San Francisco Mountains, Lukachukai Mountains, Mogollon Plateau, and White Mountains; western and northern New Mexico in Sangre de Cristo, Gallinas, Jemez, Manzano, Chuska, Mimbres, and Mogollon Mountains.

Tamiasciurus hudsonicus grahamensis (J. A. Allen)*

1894. *Sciurus hudsonicus grahamensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 350, Dec. 7, 1894.

1898. *Sciurus fremonti grahamensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 292, July 22, 1898.

1942. *Tamiasciurus fremonti grahamensis* Hatfield, Bull. Chicago Acad. Sci., vol. 6, p. 151, Jan. 12, 1942.

1951. *T[amiasciurus] h[udsonicus] grahamensis* Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 17, Feb. 15, 1951.

Type Locality.—Graham Mountains, Graham County, Ariz. *Range.*—Fir zone on summit of Graham Mountains.

Tamiasciurus hudsonicus lychnuchus (Stone and Rehn) *

1903. *Sciurus fremonti lychnuchus* Stone and Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 55, p. 18, May 7, 1903.

1929. *S[ciurus] f[remonti] ruidoso* Hatt, Roosevelt Wild Life Ann., vol. 2, No. 1, map facing p. 16, March 1929 (Lapsus calami.)

1951. *T[amiasciurus] h[udsonicus] lynchnuchus* [sic] Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 17, Feb. 15, 1951.

Type Locality.—Forks of Ruidoso, Lincoln County, N. Mex. *Range.*—Canadian Zone in White, Capitan, and Sacramento Mountains, N. Mex.; and possibly also in Guadalupe Mountains south to Texas line (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 80, Mar. 1, 1932).

Tamiasciurus hudsonicus fremontii (Audubon and Bachman) *

1853. *Sciurus fremontii* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, No. 30, pl. 149, fig. 2; text, vol. 3, p. 237.

1884. *Sciurus hudsonius fremonti* True, Proc. U. S. Nat. Mus., vol. 7 (App., Cir. 29), p. 595, Nov. 29, 1884.

1898. *Sciurus fremonti* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 287, July 22, 1898.

1940. *Tamiasciurus fremonti fremonti* Long, Journ. Mamm., vol. 21, No. 2, p. 175, May 16, 1940.

1950. *T[amiasciurus] hudsonicus fremonti* Hardy, Proc. Biol. Soc. Washington, vol. 63, p. 14, Apr. 26, 1950.

Type Locality.—"Rocky Mountains," probably in the "Park region of central Colorado" (J. A. Allen, op. cit., p. 290). *Range.*—From Chama, San Juan Mountains, northern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 74, Mar. 1, 1932), north through mountains of Colorado (Warren, The mammals of Colorado, p. 155, 1942), La Sal and Abajo Mountains east of Colorado River in southeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 14, Feb. 15, 1951) and Uinta Mountains of northeastern Utah, and in southern Wyoming to Laramie and Medicine Bow Mountains.

Tamiasciurus hudsonicus baileyi (J. A. Allen) †*

1898. *Sciurus hudsonicus baileyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 261, July 22, 1898.

1940. *Tamiasciurus hudsonicus baileyi* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 346, June 8, 1940.

Type Locality.—Bighorn Mountains, near head of Kirby Creek, Washakie County, Wyo. Altitude, 8,400 feet. *Range.*—Mountains of central Wyoming and central Montana. Its range includes Bighorn Mountains in Wyoming, and Big Snowy, Pryor, Highwood, Moccasin, and Judith Mountains in Montana, and probably other outlying pine-covered buttes and hills.

Tamiasciurus hudsonicus dakotensis (J. A. Allen) *

1894. *Sciurus hudsonicus dakotensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 325, Nov. 7, 1894.

1940. *Tamiasciurus hudsonicus dakotensis* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 346, June 8, 1940.

Type Locality.—Squaw Creek, Black Hills, Custer County, S. Dak. *Range.*—Black Hills of western South Dakota, eastern Wyoming, and southeastern Montana; north and west to Musselshell County, Mont.; south in Casper, Shirley and Laramie Mountains, Wyo.

Tamiasciurus hudsonicus pallescens A. H. Howell†*

1942. *Tamiasciurus hudsonicus pallescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 55, p. 13, May 12, 1942.

Type Locality.—Eight miles east of Upham, McHenry County, N. Dak. *Range.*—North-central North Dakota, specifically Souris River Valley in McHenry County, and Turtle Mountains in Bottineau area, probably Rolette County; and adjacent parts of southwestern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 119, Jan. 24, 1947).

Tamiasciurus hudsonicus minnesota (J. A. Allen)*

1899. *Sciurus hudsonicus minnesota* J. A. Allen, Amer. Nat., vol. 33, p. 640, August 1899.

1940. *Tamiasciurus hudsonicus minnesota* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 346, June 8, 1940.

1943. *Tamiasciurus hudsonicus murii* A. H. Howell†, Proc. Biol. Soc. Washington, vol. 56, p. 67, June 16, 1943. (Moorehead, Clay County, Minn. Regarded as identical with *minnesota* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 119, Jan. 24, 1947.)

Type Locality.—Fort Snelling, Hennepin County, Minn. *Range.*—Most of timbered area of Minnesota outside of heavy coniferous forests of northeastern part of State, north along Red River Valley in Minnesota and eastern North Dakota to southern Manitoba; east to Wisconsin and southward locally into northern and central Iowa to a little beyond border of southern lobe of Wisconsin glacial drift area (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 119, Jan. 24, 1947).

Tamiasciurus hudsonicus regalis A. H. Howell

1936. *Tamiasciurus regalis* A. H. Howell, Occ. Pap. Mus. Zool. Univ. Michigan No. 338, p. 1, July 7, 1936.

1943. *Tamiasciurus hudsonicus regalis* Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 481, p. 6, Nov. 10, 1943.

Type Locality.—Belle Isle, Isle Royale, Mich. *Range.*—Isle Royale.

Tamiasciurus hudsonicus loquax (Bangs)*

1896. *Sciurus hudsonicus loquax* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 161, Dec. 28, 1896.

1936. *Tamiasciurus hudsonicus loquax* A. H. Howell, Occ. Pap. Mus. Zool. Univ. Michigan No. 338, p. 1, July 7, 1936.

Type Locality.—Liberty Hill, New London County, Conn. *Range.*—In Canada principally in eastern and southern Ontario south of Ottawa River and west to Lake Nipissing and Georgian Bay; intergrading with *laurentianus* in southwestern Quebec (Lièvre River Valley, Labelle County), and with *hudsonicus* north of Ottawa River in Gatineau and Pontian Counties, and in Algonquin Park region, Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 119, Jan. 24, 1947); southern Vermont, southern New Hampshire, and New York (except in higher Adirondack Mountains) south through Maryland (V. Bailey, Proc. Biol. Soc. Washington, vol. 36, p. 106, May 1, 1923) to northern Virginia (Handley and Patton, Wild mammals of Virginia, p. 151, 1947), northern West Virginia (Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 460, Oct. 7, 1937), northern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, p. 137, Sept. 11, 1942), Indiana (Lyon, Amer. Midl. Nat., vol. 17, p. 195, January 1936), Michigan (Burt, Mammals of Michigan, p. 188, 1946), northern Illinois (Necker and Hatfield, Bull. Chicago Acad. Sci., vol. 6, p. 50, May 15, 1941), and southern Wisconsin.

Tamiasciurus hudsonicus ungavensis Anderson*

1942. *Tamiasciurus hudsonicus ungavensis* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1941, p. 33, July 14, 1942.

Type Locality.—Lake Waswanipi ("Woswonaby Post," Hudson's Bay Company), Abitibi District, Quebec, Canada, about 180 miles southeast of intersection of Quebec-Ontario boundary with James Bay. *Range.*—Wooded areas of western part of Ungava Peninsula (Quebec Nouvelle), Districts of Abitibi and Mistassini, in territory draining into Hudson Strait and east sides of Hudson and James Bays to border of extreme northeastern Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 121, Jan. 24, 1947); north to Fort Chimo, south of Ungava Bay.

Tamiasciurus hudsonicus laurentianus Anderson

1942. *Tamiasciurus hudsonicus laurentianus* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1941, p. 31, July 14, 1942.

Type Locality.—Lac Marchant, near Moisie Bay, Saguenay County, north shore of Gulf of St. Lawrence, Quebec, Canada. *Range.*—Laurentian region from Strait of Belle Isle, Labrador, west along north shore of Gulf of St. Lawrence and St. Lawrence River north and northwest to Lake St. John region (Quebec County) and St. Maurice River (Champlain County); intergrading with *loquax* in Lièvre River Valley (Labelle County) and with *gymnicus* south of Montreal (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 118, Jan. 24, 1947).

Tamiasciurus hudsonicus gymnicus (Bangs)*

1899. *Sciurus hudsonicus gymnicus* Bangs, Proc. New England Zool. Club., vol. 1, p. 28, Mar. 31, 1899.

1938. *T[amiasciurus] h[udsonicus] gymnicus* F. L. Osgood, Journ. Mamm., vol. 19, No. 4, p. 438, Nov. 14, 1938.

Type Locality.—Greenville, near Moosehead Lake, Piscataquis County, Me. *Range.*—Mostly in spruce forest of eastern North America south of Gulf of St. Lawrence, including all of Nova Scotia, New Brunswick, and Prince Edward Island, Gaspé Peninsula, and other parts of Quebec south of St. Lawrence River, but intergrading with *laurentianus* south of Montreal (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 118, Jan. 24, 1947); south to northern Maine, northern New Hampshire, northern Vermont, and higher parts of Adirondack Mountains in northern New York (Hatt, Roosevelt Wild Life Ann., vol. 2, No. 1, p. 16, March 1929).

Tamiasciurus hudsonicus abieticola (A. H. Howell) †*

1929. *Sciurus hudsonicus abieticola* A. H. Howell, Journ. Mamm., vol. 10, No. 1, p. 75, Feb. 11, 1929.

1937. *Tamiasciurus hudsonicus abieticola* Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 459, Oct. 7, 1937.

Type Locality.—Highlands, Macon County, N. C. *Range.*—Upper slopes of southern Appalachians from Oconee County in northwestern South Carolina (F. Sherman, Journ. Mamm., vol. 18, No. 4, p. 512, Nov. 22, 1937) north through Great Smoky Mountains of western North Carolina, extreme eastern Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 271, Feb. 14, 1939), and upper slopes of lower Canadian Zone of Allegheny and Blue Mountains in western Virginia at least as far as Highland County (Patton, Journ. Mamm., vol. 20, No. 1, p. 75, Feb. 15, 1939), and Randolph County in West Virginia (Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 459, Oct. 7, 1937).

Tamiasciurus douglasii douglasii (Bachman)*

1839. *Sciurus douglasii* Bachman, Proc. Zool. Soc. London, 1838, pt. 6, p. 99, Feb. 7, 1839.

1884. *Sciurus hudsonius douglassi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 595, Nov. 29, 1884.

1898. *Sciurus douglasii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 273, July 22, 1898.

1940. *Tamiasciurus douglasii douglasii* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 347, June 8, 1940.

Type Locality.—Near mouth of Columbia River (Probably near Vancouver, Wash. See J. A. Allen, op. cit., pp. 283–284). *Range.*—Humid coast region of Oregon and Washington, from Rogue River, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 119, Aug. 29, 1936), north to Juan de Fuca Strait and Whidbey Island, Wash.

Tamiasciurus douglasii mollipilosus (Audubon and Bachman)*

1841. *Sciurus molli-pilosus* Audubon and Bachman, Proc. Acad. Nat. Sci. Philadelphia, vol. 1 (1841–1843), p. 102, October 1841.

1897. *Sciurus hudsonicus orarius* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 281, Dec. 30, 1897. (Philo, Mendocino County, Calif. For status, see Bangs, Proc. Biol. Soc. Washington, vol. 16, pp. 99–100, June 25, 1903.)

1898. *Scurus douglasi* [sic] *mollipilosus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 276, July 22, 1898.

1898. *Sciurus douglasii cascadensis* J. A. Allen†, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 276, July 22, 1898. (Mount Hood, Oreg. For status see Osgood, Proc. Biol. Soc. Washington, vol. 20, pp. 43–44, Apr. 18, 1907; V. Bailey, North Amer. Fauna No. 55 (June), p. 122, Aug. 29, 1936; and Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 121, Jan. 24, 1947.)

1940. *Tamiasciurus douglasii mollipilosus* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 347, June 8, 1940.

Type Locality.—"Northern parts of California." (Most probably somewhere in Oregon. See Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 133, Sept. 26, 1933.) *Range.*—In California, northwest humid coast belt, from Freestone, Sonoma County, north to Oregon line in Del Norte County; east to South Fork Mountain, Trinity County, and Sherwood, Mendocino County (Grinnell, loc. cit.); north into Curry County (Port Orford), Oreg., and through Cascade Mountain region of Oregon and Washington into British Columbia, including also coast region at mouth of Fraser River, and north to Rivers Inlet (about lat. 51°30′ N.), about 60 miles northeast of Vancouver Island, where it meets the range of *vancouverensis* without intergradation (Anderson, loc. cit.).

Tamiasciurus douglasii albolimbatus (J. A. Allen)*

1890. *Sciurus hudsonius californicus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 165, Nov. 14, 1890. (Not *Sciurus* (*Macroxus*) *californicus* Lesson, 1847.)

1898. *Sciurus douglasii albolimbatus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 453, Nov. 10, 1898. (Renaming of *californicus* Allen.)

1940. *Tamiasciurus douglasii albolimbatus* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 1, p. 347, June 8, 1940.

Type Locality.—Blue Canyon, Placer County, Calif. *Range.*—Entire Sierra Nevada north from Taylor Meadow (near Kern County line), Tulare County, and north through Lassen and Shasta regions to Oregon line; east at north to Warner Mountains, Modoc County, and west through Siskiyou and Trinity Mountains; thence south through higher, inner Coast Ranges to Sanhedrin Mountains, Mendocino County, and Snow Mountain, Colusa County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 134, Sept. 26, 1933); also northward in Oregon to Paulina and Maury in Crook County and eastward south of John Day River to Strawberry Mountains in Grant County (V. Bailey, North Amer. Fauna No. 55 (June), p. 123, Aug. 29, 1936).

Tamiasciurus douglasii mearnsi (Townsend)†*

1897. *Sciurus hudsonius mearnsi* Townsend, Proc. Biol. Soc. Washington, vol. 11, p. 146, June 9, 1897.

1899. *Sciurus douglasi mearnsi* Nelson, Proc. Washington Acad. Sci., vol. 1, p. 87, May 9, 1899.

Type Locality.—Sierra San Pedro Mártir, Baja California, México. Altitude, about 7,000 feet. *Range.*—Pine forest of Sierra San Pedro Mártir, Baja California, México; reported as probably occurring also in Hanson Laguna Mountains, Baja California, and in Laguna and Cuyamaca Mountains, San Diego County, Calif. (Mearns, U. S. Nat. Mus. Bull. 56, p. 264, Apr. 13, 1907).

Genus MICROSCIURUS J. A. Allen

1895. *Microsciurus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 332, Nov. 8, 1895. (Type, *Sciurus alfari* J. A. Allen.)

Microsciurus alfari alfari (J. A. Allen)

1895. *Sciurus* (*Microsciurus*) *alfari* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 333, Nov. 8, 1895.

1912. [*Microsciurus*] *alfari* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 4, Feb. 19, 1912.

Type Locality.—Jiménez, Limón, Costa Rica. Altitude, about 600 feet. *Range.*—Humid Tropical Zone forest regions of northeastern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 367, Dec. 31, 1946).

Microsciurus alfari alticola Goodwin

1943. *Microsciurus alfari alticola* Goodwin, Amer. Mus. Nov., No. 1218, p. 2, Feb. 11, 1943.

Type Locality.—Canyons above Villa Quesada, Alajuela, Costa Rica. Altitude, 5,000 feet. *Range.*—Highlands of central Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 368, Dec. 31, 1946).

Microsciurus alfari septentrionalis Anthony

1920. *Microsciurus septentrionalis* Anthony, Journ. Mamm., vol. 1, No. 2, p. 81, Mar. 2, 1920.

1946. *Microsciurus alfari septentrionalis* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 367, Dec. 31, 1946.

Type Locality.—Sabalos, on Río San Juan, at junction of Río Sabalos, Rivas, Nicaragua. *Range.*—Low tropical forest lands of extreme south-central Nicaragua and adjacent parts of Costa Rica (Goodwin, loc. cit.).

Microsciurus alfari browni (Bangs)*

1902. *Sciurus* (*Microsciurus*) *browni* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 24, April 1902.

1912. [*Microsciurus*] *browni* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 4, Feb. 19, 1912.

1914. *Microsciurus alfari browni* J. A. Allen, Bull. Amer. Must. Nat. Hist., vol. 33, p. 151, Feb. 26, 1914.

Type Locality.—Bogava [Bugaba], foothills Volcán de Chiriquí, Chiriquí, Panamá. *Range.*—Low elevations on Pacific slopes of Cordillera, western Panamá and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 367, Dec. 31, 1946).

Microsciurus alfari venustulus Goldman†*

1912. *Microsciurus alfari venustulus* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 4, Feb. 19, 1912.

Type Locality.—Gatún, Canal Zone, Panamá. *Range.*—From Canal Zone eastward to Mount Tacarcuna and Cana near Colombian frontier (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 143, Apr. 26, 1920).

Microsciurus boquetensis (Nelson)*

1903. *Sciurus* (*Microsciurus*) *boquetensis* Nelson, Proc. Biol. Soc. Washington, vol. 16, p. 121, Sept. 30, 1903.

1912. *Microsciurus boquetensis* Miller, U. S. Nat. Mus. Bull. 79, p. 338, Dec. 31, 1912.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 6,000 feet. *Range.*—High mountain slopes of northwestern Panamá and probably adjacent parts of Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 369, Dec. 31, 1946).

Microsciurus isthmius vivatus Goldman†*

1912. *Microsciurus isthmius vivatus* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 4, Sept. 20, 1912.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 3,500 feet. *Range.*—Mountains near Colombian frontier (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 144, Apr. 26, 1920).

Genus SYNTHEOSCIURUS Bangs

1902. *Syntheosciurus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 25, April 1902. (Type, *Syntheosciurus brochus* Bangs.)

1904. *Synthetosciurus* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 91, Aug. 2, 1904. (Emendation.)

Syntheosciurus brochus Bangs

1902. *Syntheosciurus brochus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 25, April 1902. (Regarded as not more than subgenerically separable from *Sciurus* by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 366, Dec. 31, 1946.)

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 7,000 feet. *Range.*—Highlands of southwestern Panamá and probably adjacent parts of Costa Rica (Goodwin, loc. cit.).

Subfamily PTEROMYINAE (flying squirrels)

Genus GLAUCOMYS[83] Thomas

1908. *Glaucomys* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 1, p. 5, January 1908. (Type, *Mus volans* Linnaeus.)

volans—group

Glaucomys volans volans (Linnaeus) *

1758. [*Mus*] *volans* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 63.

1884. *Sciuropterus volucella volucella* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1896. *Sciuropterus silus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 163, December 28, 1896. (Top of Katis Mountain, near White Sulphur Springs, Greenbrier County, W. Va. Altitude, 3,200 feet.)

1915. *Glaucomys volans* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 109, May 27, 1915.

1915. *Pteromys volans nebrascensis* Swenk, Univ. Stud., Nebraska, vol. 15 (April) p. 151, Sept. 25, 1915. (Nebraska City, Otoe County, Nebr. Regarded as a valid subspecies by Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 74, 1944.)

Type Locality.—Virginia (see Bangs, op. cit., p. 165). *Range.*—In Canada found only in southern and eastern Ontario, from Essex County (Point Pelee) northward through region between St. Clair River, Lake Erie, and western end of Lake Ontario (Toronto), along part of north shore of Lake Ontario, the most northerly record being at about lat. 45° N. (Clayton) in Lanark County (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 123, Jan. 24, 1947); and from Aitkin and Stearns Counties in central Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 82, 1945), Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 195, 1946), northern New York (Lewis County), and southern New Hampshire south to North Carolina (Raleigh), Tennessee (Nashville), northern Arkansas (Black, Journ. Mamm., vol. 17, No. 1, p. 32, Feb. 17, 1936) and the Boston Mountains in northern Oklahoma (see Blair, Amer. Midl. Nat., vol. 22, p. 113, July 1939); west to eastern Nebraska (Otoe and Nemaha Counties) and eastern fourth of Kansas (Black, Kansas State Board Agric. Thirtieth Biennial Rep., 1935–1936, p. 180, 1937).

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[83] Revised by A. H. Howell, North Amer. Fauna No. 44, June 13, 1918.

Glaucomys volans saturatus A. H. Howell†*

1915. *Glaucomys volans saturatus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 110, May 27, 1915.

Type Locality.—Dothan, Houston County, Ala. *Range.*—Southeastern United States (excepting peninsular Florida and coast region of Georgia) from South Carolina and western North Carolina west to central and eastern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 241, November 22, 1943) and eastern half of Oklahoma (Blair, Amer. Midl., Nat., vol. 22, p. 113, July 1939).

Glaucomys volans querceti (Bangs)*

1896. *Sciuropterus volans querceti* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 166, Dec. 28, 1896.

1918. *Glaucomys volans querceti* A. H. Howell, North Amer. Fauna No. 44, p. 26, June 13, 1918.

Type Locality.—Citronelle, Citrus County, Fla. *Range.*—Peninsular Florida (south at least to Fort Myers) and coast region of Georgia.

Glaucomys volans texensis A. H. Howell†*

1915. *Glaucomys volans texensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 110, May 27, 1915.

Type Locality.—Seven miles northeast of Sour Lake, Hardin County, Tex. *Range.*—Eastern Texas, west to Aldeo, Gurley, Elgin, and Cuero; east into western Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 241, Nov. 22, 1943).

Glaucomys volans madrensis Goldman†*

1936. *Glaucomys volans madrensis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 11, p. 463, Nov. 15, 1936.

Type Locality.—Sierra Madre, Chihuahua, México. *Range.*—Sierra Madre of Chihuahua; reports suggest a range in mountains as far south as Guerrero, southwestern México.

Glaucomys volans herreranus Goldman†*

1936. *Glaucomys volans herreranus* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 11, p. 463, Nov. 15, 1936.

Type Locality.—Mountains of Veracruz, México. *Range.*—Known only from region of type locality where cloud forest conditions tend to prevail.

Glaucomys volans goldmani (Nelson)†*

1904. *Sciuropterus volans goldmani* Nelson, Proc. Biol. Soc. Washington, vol. 17, p. 148, Oct. 6, 1904.

1918. *Glaucomys volans goldmani* A. H. Howell, North Amer. Fauna No. 44, p. 28, June 13, 1918.

Type Locality.—Twenty miles southeast of Teopisca, Chiapas, México. *Range.*—Chiapas highlands biotic province (Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 359, Feb. 12, 1946). Recorded also from Cerro San Felipe, 9,500 feet, Oaxaca (Hooper, Journ. Mamm., vol. 33, No. 1, p. 110, Feb. 18, 1952).

Glaucomys volans underwoodi Goodwin

1936. *Glaucomys volans underwoodi* Goodwin, Amer. Mus. Nov., No. 898, p. 1, Dec. 31, 1936.

Type Locality.—Zambrano, a village on main road to Lake Yojoa and north coast, about half way between Tegucigalpa and Comayagua, Francisco Morazán, Honduras. Altitude, 4,500 feet. *Range.*—Known from type locality only.

sabrinus—group

Glaucomys sabrinus sabrinus (Shaw)*

1801. *Sciurus sabrinus* Shaw, General Zoology, . . ., vol. 2 (Mammalia), pt. 1, p. 157.

1884. *Sciuropterus volucella hudsonius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1896. *Sciuropterus sabrinus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 162, Dec. 28, 1896.

1915. [*Glaucomys*] *sabrinus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 111, May 27, 1915.

Type Locality.—Severn River, northwestern Ontario, Canada. *Range.*—Northern interior of Canada from Simpson and Providence on Mackenzie River, Great Slave Lake, south through central and eastern Alberta to Edmonton and Calgary; east across southern Mackenzie, northern Saskatchewan, and northern Manitoba to lower Churchill River; northern and western Ontario as far south as Nipissing, and central and southern Quebec (except for some distance north of Ottawa River where it intergrades with *macrotis*); east to north shore of lower St. Lawrence River, Lake Edward, Godbout, and probably farther east (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 123, Jan. 24, 1947); extreme northwestern Wisconsin, northeastern Minnesota, and extreme southwestern New York (Sollberger, Journ. Mamm., vol. 21, No. 3, p. 283, Aug. 13, 1940).

Glaucomys sabrinus makkovikensis (Sornborger)*

1900. *Sciuropterus sabrinus makkovikensis* Sornborger, Ottawa Naturalist, vol. 14, p. 48, June 6, 1900.

1918. *Glaucomys sabrinus makkovikensis* A. H. Howell, North Amer. Fauna No. 44, p. 34, June 13, 1918.

Type Locality.—Makkovik, Labrador. *Range.*—Coast region of Labrador (Cartwright, L'Anse au Loup, Makkovik, Paradise) and Northwest River, Bonne Esperance, Stick Point, and Saguenay County near Strait of Belle Isle in eastern Quebec (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 126, Jan. 24, 1947).

Glaucomys sabrinus goodwini Anderson

1943. *Glaucomys sabrinus goodwini* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 55, Sept. 7, 1943.

Type Locality.—Berry Mountain Camp, junction of Berry Mountain Brook and Grand Cascapedia River, Matane County, Quebec, Canada. Altitude, about 1,500 feet. *Range.*—Gaspé Peninsula, Quebec, Canada.

Glaucomys sabrinus gouldi Anderson*

1943. *Glaucomys sabrinus gouldi* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 56, Sept. 7, 1943.

Type Locality.—Frizzleton, Inverness County, Cape Breton Island, Nova Scotia, Canada. *Range.*—Province of Nova Scotia, including Cape Breton Island.

Glaucomys sabrinus macrotis (Mearns)†*

1898. *Sciuropterus sabrinus macrotis* Mearns, Proc. U. S. Nat. Mus., vol. 21, p. 353, Nov. 4, 1898.

1915. *G[laucomys] s[abrinus] macrotis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 111, May 27, 1915.

Type Locality.—Hunter Mountain, Catskill Mountains, Greene County, N. Y. *Range.*—In Canada, from northern New Brunswick (Gloucester County, Miramichi Road; Madawaska County, Edmundston) through eastern counties of southern Quebec south of upper St. Lawrence River and southern parts of counties on north side of Ottawa River (Gatineau County, Blue Sea Lake) where it intergrades with *sabrinus;* west through east-central Ontario from upper St. Lawrence River to Parry Sound district and Lake Huron, reaching its southern limit about lat. 43°30′ N. at altitudes over 1,000 feet in southern Ontario where its range overlaps that of *volans* (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 126, Jan. 24, 1947); Maine, New Hampshire, Vermont, northern Massachusetts, Boreal Zone portions of New York, northern Pennsylvania (Doutt, Journ. Mamm., vol. 11, No. 2, p. 240, May 9, 1930), Michigan (Burt, Mammals of Michigan, p. 198, 1946), and northeastern Wisconsin; west into east-central Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 82, 1945).

Glaucomys sabrinus fuscus Miller†*

1936. *Glaucomys sabrinus fuscus* Miller, Proc. Biol. Soc. Washington, vol. 49, p. 143, Aug. 22, 1936.

Type Locality.—Cranberry Glades, Pocahontas County, W. Va. Altitude, 3,300 feet. *Range.*—Appalachian Mountain region, from Randolph County, northeastern West Virginia, south at least to Roan Mountain, Carter County, northeastern Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 276, Feb. 14, 1939).

Glaucomys sabrinus canescens A. H. Howell*

1915. *Glaucomys sabrinus canescens* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 111, May 27, 1915.

Type Locality.—Portage la Prairie, Manitoba, Canada. *Range.*—In Canada, north to Poplar Point at southern end of Lake Winnipeg, Carberry, Portage la Prairie, and Treesbank, southern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 124, Jan. 24, 1947); timber along Assiniboine River and Moose Mountain, Saskatchewan (Soper, Journ. Mamm., vol. 27, No. 2, p. 143, May 14, 1946); Breckinridge, western Minnesota; Grafton, Pembina, and Portland in eastern North Dakota; Black Hills, S. Dak.; and Bear Lodge Mountains, Wyo.

Glaucomys sabrinus bangsi (Rhoads)*

1897. *Sciuropterus alpinus bangsi* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 321, July 19, 1897.

1915. *Glaucomys bullatus* A. H. Howell†, Proc. Biol. Soc. Washington, vol. 28, p. 113, May 27, 1915. (Sawtooth (or Alturas) Lake, east base of Sawtooth Mountains, Idaho. For status, see Whitlow and Hall, Univ. California Publ. Zool., vol. 40, No. 3, p. 254, Sept. 30, 1933; Hall, Univ. California

Publ. Zool. vol. 40, No. 9, p. 374, Nov. 5, 1934; Davis, The Recent mammals of Idaho, p. 234, Apr. 5, 1939; and Mayer, Murrelet, vol. 22, No. 2, pp. 30–31, Sept. 15, 1941.)

1918. *Glaucomys sabrinus bangsi* A. H. Howell, North Amer. Fauna No. 44, p. 38, June 13, 1918.

Type Locality.—Raymond, Bear Lake County, Idaho. *Range.*—Western Wyoming, southwestern Montana, mountains of eastern and central Idaho (south of Idaho County and north of Snake River; Davis, op. cit., p. 231), and Blue Mountain region of northeastern Oregon, and Blue Mountains of extreme southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 295, Apr. 9, 1948), north to vicinity of Flathead Lake, Montana. Three specimens from northern edge of Tobacco Plains region near Loon Lake, altitude 2,371 feet, east of Kootenay River near Newgate in southeastern British Columbia are regarded as intergrades with *fuliginosus* by Anderson (Nat. Mus. Canada Bull, 102 (1946), p. 124, Jan. 24, 1947).

Glaucomys sabrinus lucifugus Hall

1934. *Glaucomys sabrinus lucifugus* Hall, Occ. Pap. Mus. Zool. Univ. Michigan No. 296, p. 1, Nov. 2, 1934.

Type Locality.—Twelve miles east of Kamas, Summit County, Utah. *Range.*—Recorded from Uinta Mountains as far east as junction of Deep and Carter Creeks, Daggett County, and as far south as Boulder Mountain (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, pp. 102–103, Feb. 15, 1951) and Bryce National Park in Garfield County, Utah (Tanner, Great Basin Naturalist, vol. 1, p. 126, June 30, 1940).

Glaucomys sabrinus alpinus (Richardson)*

1828. *Pteromys alpinus* Richardson, Zool. Journ. vol. 3, p. 519.

1897. *Sciuropterus alpinus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 319, July 19, 1897.

1918. *Glaucomys sabrinus alpinus* A. H. Howell, North Amer. Fauna No. 44, p. 40, June 13, 1918.

Type Locality.—Jasper House, Alberta, Canada (see A. H. Howell, loc. cit.). *Range.*—Rocky Mountain region of Alberta and British Columbia from vicinity of Henry House and Jasper National Park, north to Peace River and Lower Liard Crossing, on Alaska Highway; west through mountains (Bowron Lake, Stuart Lake, Babine Lake, and Ootsa Lake) of eastern Cariboo and southeastern Omineca region (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 124, Jan. 24, 1947).

Glaucomys sabrinus yukonensis (Osgood)†*

1900. *Sciuropterus yukonensis* Osgood, North Amer. Fauna No. 19, p. 25, Oct. 6, 1900.

1918. *Glaucomys sabrinus yukonensis* A. H. Howell, North Amer. Fauna No. 44, p. 41, June 13, 1918.

Type Locality.—Camp Davidson, Yukon River, near Alaska–Canada boundary, Yukon, Canada. *Range.*—East-central Alaska from Tanana and head of Toklat River, east into Canada in Yukon River region to Camp Davidson and Fortymile (near Alaska–Yukon boundary), Mayo Lake (near head of Stewart River), Selkirk (at junction of Pelly and Lewes Rivers) and Lapie River, Canol Road, Mile

132, near junction of Pelly and Ross Rivers (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 127, Jan. 24, 1947).

Glaucomys sabrinus zaphaeus (Osgood)†*

1905. *Sciuropterus alpinus zaphaeus* Osgood, Proc. Biol. Soc. Washington, vol. 18, p. 133, Apr. 18, 1905.

1918. *Glaucomys sabrinus zaphaeus* A. H. Howell, North Amer. Fauna No. 44, p. 43, June 13, 1918.

Type Locality.—Helm Bay, Cleveland Peninsula, southeastern Alaska. *Range.*—Coast region of southeastern Alaska adjacent to Alexander Archipelago and south at least to Gardner Canal on north coastal British Columbia (Cowan, Proc. Biol. Soc. Washington, vol. 50, p. 78, June 22, 1937).

Glaucomys sabrinus griseifrons A. H. Howell†*

1934. *Glaucomys sabrinus griseifrons* A. H. Howell, Journ. Mamm., vol. 15, No. 1, p. 64, Feb. 15, 1934.

Type Locality.—Lake Bay, Prince of Wales Island, Alaska. *Range.*—Prince of Wales Island.

Glaucomys sabrinus oregonensis (Bachman)*

1839. *Pteromys oregonensis* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, p. 101.

1897. *Sciuropterus alpinus oregonensis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 324, June 1897.

1918. *Glaucomys sabrinus oregonensis* A. H. Howell, North Amer. Fauna No. 44, p. 44, June 13, 1918.

Type Locality.—Pine woods of the Columbia, near the sea. Probably near St. Helens, Columbia County, Oreg. (see Rhoads, loc. cit.). *Range.*—Coast region of Oregon, Washington, and southwestern British Columbia; south at least to mouth of Rogue River, Oregon, and east to base of Cascade Range (V. Bailey, North Amer. Fauna No. 55, (June), p. 163, Aug. 29, 1936); north at least as far as Bute Inlet, British Columbia; recorded from Bute Inlet, Huntingdon, Loughborough Inlet, Mission, Sumas Prairie, Vancouver, and Vedder River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 126, Jan. 24, 1947).

Glaucomys sabrinus columbiensis A. H. Howell†*

1915. *Glaucomys sabrinus columbiensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 111, May 27, 1915.

Type Locality.—Okanagan, British Columbia, Canada. *Range.*—Interior valleys and foothills of southern British Columbia and northern Washington, from western Selkirks (Broadwater, Upper Arrow Lake), Shuswap Lake (mouth of Big Salmon River), Okanagan Valley (Okanagan Lumby, Okanagan Falls, Okanagan Landing, Penticton, Vernon), and Hedley in Similkameen Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 124, Jan. 24, 1947), south to north-central Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 296, Apr. 9, 1948).

Glaucomys sabrinus reductus Cowan

1937. *Glaucomys sabrinus reductus* Cowan, Proc. Biol. Soc. Washington, vol. 50, p. 79, June 22, 1937.

Type Locality.—Lonesome Lake, on Atnarko River, approximately lat. 52° 10′ N. and long. 125° 45′ W., British Columbia, Canada. *Range.*—Western central British Columbia from Middle Fraser River (Quesnel) west across Chilcotin Plateau (Chezacut, Anahim Lake) to Atnarko River (Lonesome Lake) and Coast Range at head of Bella Coola River (Hagensborg, Nusatsum, and Stuie), and Kimsquit at head of Dean Channel (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 126, Jan. 24, 1947).

Glaucomys sabrinus fuliginosus (Rhoads) *

1897. *Sciuropterus alpinus fuliginosus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 321, July 19, 1897.

1915. *Glaucomys sabrinus latipes* A. H. Howell†, Proc. Biol. Soc. Washington, vol. 28, p. 112, May 27, 1915. (Glacier, British Columbia, Canada. Regarded as identical with *fuliginosus* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 125, Jan. 24, 1947.)

1918. *Glaucomys sabrinus fuliginosus* A. H. Howell, North Amer. Fauna No. 44, p. 47, June 13, 1918.

Type Locality.—Cascade Mountains, near Martin Station, Kittitas County, Wash. Altitude, about 8,000 feet. *Range.*—Southern British Columbia, north along coast to Jervis Inlet (Cowan, Proc. Biol. Soc. Washington, vol. 50, p. 78, June 22, 1937), north through Selkirk Range at least to Glacier, and along whole of international boundary region (lat. 49° N.) east of coastal belt, from west slopes of Cascades (Lihumitson Park, 4,800 feet); Vancouver district; east slope of Cascades (Princeton, 2,400 feet; Fairview-Keremos summit, 3,800 feet); Monashee Mountains (Osoyoos–Bridesville summit, 3,500 feet; Westbridge, 2,075 feet; Christina Lake, 2,366 feet; Rossland, 5,000 feet); Kootenay district (Creston, 1,800 feet; Goatfell, 2,940 feet; Yahk, Meadow Creek, 3,800 feet; Cranbrook, 3,013 feet; Newgate, 2,371–2,900 feet); Rocky Mountains (west slope, Morrissey, 3,132 feet) in British Columbia; and on eastern slope of Rocky Mountains in extreme southwestern Alberta (Waterton Lakes National Park); intergradation is shown to some extent with *oregonensis* on west side of Cascades, with *columbiensis* on Salmon River south of Shuswap Lake, and with *bangsi* in southeastern British Columbia and southwestern Alberta (Anderson, loc. cit.); south through Cascade Range of western Washington and Oregon to Preston Peak in western Siskiyou County, California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 135, Sept. 26, 1933); and south to Idaho County, Idaho (Davis, The Recent mammals of Idaho, p. 234, Apr. 5, 1939), and higher mountains of northwestern Montana.

Glaucomys sabrinus olympicus (Elliot) *

1899. *Sciuropterus alpinus olympicus* Elliot, Field Columb. Mus. Publ. 30, Zool. Ser., vol. 1, p. 225, Feb. 2, 1899. (Regarded as identical with *oregonensis* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 295, Apr. 9, 1948.)

1918. *Glaucomys sabrinus olympicus* A. H. Howell, North Amer. Fauna No. 44, p. 49, June 13, 1918.

Type Locality.—Happy Lake, Clallam County, Wash. *Range.*—Western Washington, Olympic Peninsula south to Columbia River.

Glaucomys sabrinus klamathensis (Merriam)†*

1897. *Sciuropterus alpinus klamathensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 225. July 15, 1897.

1918. *Glaucomys sabrinus klamathensis* A. H. Howell, North Amer. Fauna No. 44, p. 52, June 13, 1918.

Type Locality.—Fort Klamath, Klamath County, Oreg. Altitude, 4,200 feet. *Range.*—Yellow pine forest east of Cascade Mountains, north at least to Paulina Mountains and south to Klamath region (V. Bailey, North Amer. Fauna No. 55 (June), p. 165, Aug. 29, 1936).

Glaucomys sabrinus flaviventris A. H. Howell*

1915. *Glaucomys sabrinus flaviventris* A. H. Howell, Proc. Biol. Soc. Washington, vol. 28, p. 112, May 27, 1915.

Type Locality.—Bear Creek, Trinity County, Calif. Altitude, 6,400 feet. *Range.*—Scott, Salmon, and Trinity Mountains, in Trinity and Siskiyou Counties; and also (not typical but intergradient toward a race in Oregon) on Warner Mountains, Modoc County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 136, Sept. 26, 1933).

Glaucomys sabrinus lascivus (Bangs)*

1899. *Sciuropterus alpinus lascivus* Bangs, Proc. New England Zool. Club, vol. 1, p. 69, July 31, 1899.

1918. *Glaucomys sabrinus lascivus* A. H. Howell, North Amer. Fauna No. 44, p. 55, June 13, 1918.

Type Locality.—Tallac, El Dorado County, Calif. *Range.*—Sierra Nevada, north to Old Fort Crook, Shasta County, and south to Sherman Creek, Sequoia National Park, Tulare County; vertical range from 3,000 feet at Dudley on Smith Creek, Mariposa County, up to 8,100 feet near Porcupine Flat, Yosemite National Park (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 136, Sept. 26, 1933).

Glaucomys sabrinus californicus (Rhoads)*

1897. *Sciuropterus alpinus californicus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 323, July 19, 1897.

1918. *Glaucomys sabrinus californicus* A. H. Howell, North Amer. Fauna No. 44, p. 56, June 13, 1918.

Type Locality.—San Bernardino Mountains, San Bernardino County, Calif.; more exactly, Squirrel Inn. Altitude, 5,200 feet. *Range.*—San Bernardino and San Jacinto Mountains, in San Bernardino and Riverside Counties, California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 136, Sept. 26, 1933).

Glaucomys sabrinus stephensi (Merriam)†*

1900. *Sciuropterus oregonensis stephensi* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 151, June 13, 1900.

1918. *Glaucomys sabrinus stephensi* A. H. Howell, North Amer. Fauna No. 44, p. 57, June 13, 1918.

Type Locality.—Sherwood, Mendocino County, Calif. Altitude, 2,500 feet. *Range.*—Northwest coast belt, at least from Eureka and Blocksburg, Humboldt County, and Cecilville, Siskiyou County, south to Sherwood and Dos Rios, Mendocino County, Calif. Life zone, Transition. Inhabits forest where either redwood or Douglas spruce predominates (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 135, Sept. 26, 1933).

Superfamily GEOMYOIDEA

Family GEOMYIDAE (pocket gophers)

Subfamily GEOMYINAE

Genus THOMOMYS[84] Wied-Neuwied

1839. *Thomomys* Wied-Neuwied, Nova Acta Phys.-Med. Acad. Caesar. Leop.-Carol., vol. 19, pt. 1, p. 377. (Type, *Thomomys rufescens* Wied-Neuwied.)

Subgenus THOMOMYS Wied-Neuwied

bottae—group[85]

Thomomys bottae bottae (Eydoux and Gervais) *

1836. *Oryctomys* (*Saccophorus*) *bottae* Eydoux and Gervais, Mag. Zool., Paris, vol. 6, p. 23.

1855. *Thomomys bottae* Baird, Proc. Acad, Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 335, April 1855.

1884. *Thomomys talpoides bulbivorus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884. (Part.)

1893. [*Thomomys*] *bottae* Miller, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 57, Apr. 28, 1893.

Type Locality.—Coast of California. Name applied by Baird in 1855 to the form occurring in the vicinity of Monterey, and reapplied to the same animal by Miller in 1893. *Range.*—A relatively narrow strip along seacoast south from San Francisco Bay region to range of *sanctidiegi;* recorded definitely north to Freestone, southern Sonoma County, and east in San Francisco Bay region through Contra Costa and Alameda Counties as far as Tracy, western San Joaquin County; zonal range, chiefly Upper Sonoran, extending into Transition close to seacoast in northern part of its range; vertical range, from near sea level up to at least 3,000 feet (Chalk Peak, southern Monterey County) (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 137, Sept. 26, 1933).

Thomomys bottae minor V. Bailey†*

1914. *Thomomys bottae minor* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 116, July 10, 1914.

Type Locality.—Fort Bragg, Mendocino County, Calif. *Range.*—Narrow northwest coastal strip south from vicinity of Cape Mendocino, Humboldt County, to vicinity of Cazadero, Sonoma County; interiormost station, Guerneville, Sonoma County; zonal range, Transition; vertical range, from sea level up to 500 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 137, Sept. 26, 1933).

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[84] Revised by V. Bailey, North Amer. Fauna No. 39, Nov. 15, 1915; species and subspecies listed by Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 52, pp. 7–26, July 21, 1941.

[85] Comprises the *bottae, perpallidus,* and *fulvus* groups of V. Bailey, North Amer. Fauna No. 39, Nov. 15, 1915. Subspecies listed by Goldman, Proc. Biol. Soc. Washington, vol. 48, pp. 153–157, Oct. 31, 1935. Arizona subspecies reviewed by Goldman, North Amer. Fauna No. 59, pp. 7–32, June 12, 1947; Nevada subspecies, by Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, pp. 387–400, Mar. 13, 1935; Utah subspecies, by Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, pp. 28–79, Aug. 15, 1946; and Baja California subspecies, by Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, pp. 245–268, Aug. 31, 1945.

Thomomys bottae silvifugus Grinnell

1935. *Thomomys bottae silvifugus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 11, p. 406, Nov. 14, 1935.

Type Locality.—Near Coyote Peak, 16 miles due east, air line, of ocean at Patricks Point, Humboldt County, Calif. Altitude, 3,000 feet. *Range.*—Bald Hills, which lie interiorly from redwood belt in northern Humboldt County, Calif. Zonal range, Transition; vertical range, 2,500 to 3,000 feet.

Thomomys bottae laticeps Baird†*

1855. *Thomomys laticeps* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, 1854–1855, p. 335, April 1855.

1893. *Thomomys laticeps* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 63, Apr. 28, 1893.

1915. *Thomomys bottae laticeps* V. Bailey, North Amer. Fauna No. 39, p. 46, Nov. 15, 1915.

Type Locality.—Humboldt Bay, Humboldt County, Calif. *Range.*—Coast region of northwestern California from Rio Dell, Eel River, Humboldt County, north to Chetco, extreme southwestern Curry County, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 253, Aug. 29, 1936).

Thomomys bottae detumidus Grinnell*

1935. *Thomomys bottae detumidus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 11, p. 405, Nov. 14, 1935.

Type Locality.—A mile and a half south of town of Pistol River, Curry County, Oreg. Altitude, 250 feet. *Range.*—Known from type locality only.

Thomomys bottae leucodon Merriam†*

1897. *Thomomys leucodon* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 215, July 15, 1897.

1915. *Thomomys bottae leucodon* V. Bailey, North Amer. Fauna No. 39, p. 47, Nov. 15, 1915.

Type Locality.—Grant Pass, Rogue River Valley, Josephine County, Oreg. *Range.*—In western Oregon from Cottage Grove, Lane County, upper Willamette Valley, south through Umpqua and Rogue River Valleys and the Klamath River Valley west of Lower Klamath Lake (V. Bailey, North Amer. Fauna No. 55 (June), p. 252, Aug. 29, 1936); an extensive, though much broken, area in northern California, chiefly west of Sierran divide and east of narrow humid coast strip; south from Oregon line in Shasta Valley through inner Coast Ranges to Salmon–Scott–Trinity Mountain Divide, and along lower western slopes of Sierra Nevada to Placerville, El Dorado County; east, up Pit River Valley, as far as Pit River Forest Service Station, Modoc County; zonal range, Upper Sonoran, but locally also Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 138, Sept. 26, 1933).

Thomomys bottae saxatilis Grinnell

1934. *Thomomys bottae saxatilis* Grinnell, Proc. Biol. Soc. Washington, vol. 47, p. 193, Oct. 2, 1934.

Type Locality.—One mile north of Susanville, Lassen County, Calif. Altitude, 4,400 feet. *Range.*—Upper (western) part of valley of east-flowing Susan River, Lassen County, Calif. Zonal range, Upper Sonoran and Lower Transition; vertical range, 4,200 to 4,800 feet.

Thomomys bottae acrirostratus Grinnell

1935. *Thomomys bottae acrirostratus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 11, p. 408, Nov. 14, 1935.

Type Locality.—Valley of Mad River, 7 miles above Ruth, Trinity County, Calif. Altitude, 2,700 feet. *Range.*—Interior valleys of northwestern California altogether west of Sacramento Valley, south of Salmon–Scott–Trinity Mountain Divide, and interiorly of humid coast belt; most typically, valleys of upper Mad River and Trinity River, in Trinity County. Intergradient to east toward *navus*, of floor of upper Sacramento Valley, to south toward *bottae*, of San Francisco Bay region, and to west toward *laticeps* and *minor*, of humid coast belt.

Thomomys bottae navus Merriam†*

1901. *Thomomys leucodon navus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 112, July 19, 1901.

1915. *Thomomys bottae navus* V. Bailey, North Amer. Fauna No. 39, p. 49, Nov. 15, 1915.

Type Locality.—Red Bluff, Tehama County, Calif. *Range.*—Floor of Sacramento Valley and immediately adjacent foothills, from Battle Creek, Tehama County, south as far as Tracy Lake, San Joaquin County; vertical range, from near sea level at Davis, Yolo County, up to 1,500 feet at Mokelumne Hill, Calaveras County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 138, Sept. 26, 1933).

Thomomys bottae agricolaris Grinnell

1935. *Thomomys bottae agricolaris* Grinnell, Univ. California Publ. Zool., vol. 40, No. 11, p. 409, Nov. 14, 1935.

Type Locality.—Stralock Farm, 3 miles west of Davis, Yolo County, Calif. *Range.*—Lower west side of Sacramento Valley, inclusive of parts of Yolo and Solano Counties, Calif.; inland from near Sacramento River above flood level west into foothills of Coast Ranges. Zonal range, Lower and Upper Sonoran.

Thomomys bottae awahnee Merriam†*

1908. *Thomomys alpinus awahnee* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 146, June 9, 1908.

1935. *Thomomys bottae awahnee* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 154, Oct. 31, 1935.

Type Locality.—Yosemite Valley, near old Sentinel Hotel, Mariposa County, Calif. Altitude, 4,000 feet. *Range.*—Western middle flanks of Sierra Nevada, from Sequoia, Tuolumne County, south to Cannell and Taylor Meadows, Tulare County; thence interruptedly even to Tehachapi Peak, Kern County, Calif.; zonal range, chiefly Transition; vertical range, 3,500 to 8,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 142, Sept. 26, 1933).

Thomomys bottae mewa Merriam†*

1908. *Thomomys mewa* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 146, June 9, 1908.

1915. *Thomomys bottae mewa* V. Bailey, North Amer. Fauna No. 39, p. 50, Nov. 15, 1915.

Type Locality.—Raymond, Madera County, Calif. *Range.*—Digger pine belt along western base of Sierra Nevada, from Chinese, western Tuolumne County, south to vicinity of Kernville, Kern County, Calif.; zonal range, characteristically Upper Sonoran, locally Transition; vertical range, from 300 feet at Lagrange, Stanislaus County, up to 5,300 feet at Shaver Ranger Station, Fresno County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 138, Sept. 26, 1933).

Thomomys bottae lorenzi Huey

1940. *Thomomys bottae lorenzi* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 22, p. 219, July 31, 1940.

Type Locality.—Seven miles north of Boulder Creek, Santa Cruz Mountains, Santa Cruz County, Calif. *Range.*—Drainage system of San Lorenzo River on southern slope of Santa Cruz Mountains, Santa Cruz County, Calif.

Thomomys bottae diaboli Grinnell*

1914. *Thomomys diaboli* Grinnell, Univ. California Publ. Zool., vol. 12, No. 9, p. 313, Nov. 21, 1914.

1915. *Thomomys bottae diaboli* V. Bailey, North Amer. Fauna No. 39, p. 51, Nov. 15, 1915.

Type Locality.—Sweeney's Ranch [near Sweeney Hill], 22 miles [by road] southwest of Los Banos, Diablo Range, Merced County, Calif. *Range.*—Diablo Range (or innermost series of Coast Ranges), from west side of Mount Diablo, Contra Costa County, at 1,750 feet altitude, south to divide, at 3,000 feet altitude, west of McKittrick, Kern County, Calif.; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 140, Sept. 26, 1933).

Thomomys bottae angularis Merriam†*

1897. *Thomomys angularis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 214, July 15, 1897.

1915. *Thomomys bottae angularis* V. Bailey, North Amer. Fauna No. 39, p. 53, Nov. 15, 1915.

Type Locality.—Los Banos, Merced County, Calif. *Range.*—Chiefly west side of floor of San Joaquin Valley, south from vicinity of Tracy (8 miles south), San Joaquin County, to Coalinga, Fresno County; also, less typically, parts of Santa Clara, San Juan, and Salinas Valleys, Santa Clara to San Luis Obispo Counties; zonal range, mainly Lower Sonoran, but also Upper Sonoran in certain valleys among the Coast Ranges; vertical range, from below 100 feet up to 1,500 feet in San Benito County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 139, Sept. 26, 1933).

Thomomys bottae pascalis Merriam†*

1901. *Thomomys angularis pascalis* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 111, July 19, 1901.

1915. *Thomomys bottae pascalis* V. Bailey, North Amer. Fauna No. 39, p. 54, Nov. 15, 1915.

Type Locality.—Fresno, San Joaquin Valley, Fresno County, Calif. *Range.*—East side and whole southern (upper) end of floor of San Joaquin Valley (excepting bed of Buena Vista Lake), from vicinity of Stockton, San Joaquin County, south to San Luis Obispo County; also, less typically, on mountains around head of San Joaquin Valley—Tehachapi to Tejon Pass and San Emigdio Canyon, California; zonal range, Lower Sonoran in floor of San Joaquin Valley; Upper Sonoran around southern rim of that valley; vertical range, from near sea level at Stockton up to 5,500 feet on north flank of Mount Pinos, Ventura County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 139, Sept. 26, 1933).

Thomomys bottae infrapallidus Grinnell*

1914. *Thomomys infrapallidus* Grinnell, Univ. California Publ. Zool., vol. 12, No. 9, p. 314, Nov. 21, 1914.

1915. *Thomomys bottae infrapallidus* V. Bailey, North Amer. Fauna No. 39, p. 55, Nov. 15, 1915—Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 154, Oct. 31, 1935.

Type Locality.—Seven miles southeast of Simmler, Carrizo Plain, San Luis Obispo County, Calif. *Range.*—Carrizo Plain, San Luis Obispo County, Calif. Zonal range, Lower Sonoran; vertical range, 1,900 to 2,000 feet.

Thomomys bottae ingens Grinnell*

1932. *Thomomys bottae ingens* Grinnell, Univ. California Publ. Zool., vol. 38, No. 10, p. 405, Sept. 20, 1932.

Type Locality.—East side levee (2 miles due west of Millux, as shown on U. S. Geol. Surv. Buena Vista Lake Quadrangle), Buena Vista Lake, Kern County, Calif. Altitude, 290 feet. *Range.*—Bed of Buena Vista Lake "sink," Kern County, Calif.; now known only east of deepest part of sink; zonal range, Lower Sonoran; vertical range, below 300 feet (Grinnell, Univ. California Publ. Zool., vol. 40, p. 139. Sept. 26, 1933).

Thomomys bottae piutensis Grinnell and Hill

1936. *Thomomys bottae piutensis* Grinnell and Hill, Proc. Biol. Soc. Washington, vol. 49, p. 103, Aug. 22, 1936.

Type Locality.—French Gulch, Piute Mountains, 2½ miles northwest of Claraville, Kern County, Calif. Altitude, 6,700 feet. *Range.*—Recorded from Piute Mountain, Walker Basin, and Kelso Valley (not typical), in Kern County.

Thomomys bottae melanotis Grinnell*

1918. *Thomomys melanotis* Grinnell, Univ. California Publ. Zool., vol. 17, No. 14, p. 425, Apr. 25, 1918.

1932. *Thomomys bottae melanotis* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 328, Feb. 27, 1932.

Type Locality.—Big Prospector Meadow, White Mountains, Mono County, Calif. Altitude, 10,500 feet. *Range.*—In Nevada, Mount Magruder, Esmerelda County (Hall, Mammals of Nevada, p. 475, July 1, 1946); in California, White Mountains and adjacent upper portion of Owens Valley, from vicinity of Big Prospector Meadow and Benton in Mono County, south to Independence, Inyo County; intergradation with *perpes* thought to take place south of latter point; zonal range, Lower Sonoran to Canadian; vertical range, 3,900 to 14,000 feet (White Mountain Peak; Bole, Journ. Mamm., vol. 19, No. 2, p. 245. May 12, 1938) in California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 144, Sept. 26, 1933).

Thomomys bottae alpinus Merriam†*

1897. *Thomomys alpinus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 216, July 15, 1897.

1935. *Thomomys bottae alpinus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 154, Oct. 31, 1935.

Type Locality.—Big Cottonwood Meadows, 8 miles southeast of Mount Whitney Peak, High Sierra, Inyo County, Calif. Altitude, 10,000 feet. *Range.*—Southern high Sierra Nevada, from Sirretta Meadows, Tulare County (toward Kern County Line), north at least to Whitney Creek at 10,650 feet; west to Jordan Hot Springs, Tulare County, and east to Olancha Peak, Calif.; zonal range, Canadian and Hudsonian; vertical range, 6,000 to 11,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 142, Sept. 26, 1933).

Thomomys bottae perpes Merriam†*

1901. *Thomomys aureus perpes* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 111, July 19, 1901.

1935. *Thomomys bottae perpes* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935. (See also Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 325, Feb. 27, 1932.)

Type Locality.—Lone Pine, Owens Valley, Inyo, County, Calif. *Range.*—Almost continuous along eastern base of southern Sierra Nevada, from Lone Pine Creek (likely also north of there), Inyo County, south past Olancha and Little Lake to vicinity of Freeman and Rosamond, Kern County, Calif.; zonal range, chiefly Lower Sonoran, but also Upper Sonoran; vertical range, 2,500 to 5,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 144. Sept. 26, 1933).

Thomomys bottae operarius Merriam†*

1897. *Thomomys operarius* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 215, July 15, 1897.

1935. *Thomomys bottae operarius* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—Keeler, east side of Owens Lake, Inyo County, Calif. Altitude, 3,600 feet. *Range.*—Vicinity of permanent springs and seepages along east side of Owens Lake, Inyo County, Calif.

Thomomys bottae scapterus Elliot*

1904. *Thomomys scapterus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3 (December 1903), p. 248, Jan. 7, 1904. (Regarded as identical with *perpes* by V. Bailey, North Amer. Fauna No. 39, p. 72, Nov. 15, 1915, and by Goldman, Journ. Mamm., vol. 25, No. 4, p. 414, Dec. 12, 1944.)

1935. *Thomomys bottae scapterus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—Hannopee [= Hanaupah] Canyon, near lower edge of piñons, Panamint Mountains, Inyo County, Calif. Altitude, 7,500 feet. *Range.*—Panamint Mountains, Inyo County; specimens examined from Johnson Canyon north to Cottonwood Canyon and west as far as Lee Mine, 12 miles north of Darwin; zonal range, chiefly Upper Sonoran, extending up into Transition and down into Lower Sonoran only locally; vertical range, 5,200 to 9,500 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 144, Sept. 26, 1933).

Thomomys bottae argusensis Huey

1931. *Thomomys argusensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 5, p. 43, Dec. 19, 1931.

1935. *Thomomys bottae argusensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—Junction Ranch, Argus Mountains, Inyo County, Calif. *Range.*—Recorded from Junction Ranch, Orando [=Arando] Mine, and Mountain Spring, Argus Mountains, Inyo County, Calif.

Thomomys bottae oreoecus Burt

1932. *Thomomys oreoecus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 14, p. 154, July 28, 1932.

1935. *Thomomys bottae oreoecus* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 399, Mar. 13, 1935.

Type Locality.—Greenwater, in Black Mountains 8 miles southwest of Ryan, Inyo County, Calif. Altitude, 4,300 feet. *Range.*—Black Mountains, Inyo County, Calif.; and Grapevine Mountains, Nye County, Nev. (Hall, Mammals of Nevada, p. 476, July 1, 1946).

Thomomys bottae amargosae Grinnell*

1921. *Thomomys perpallidus amargosae* Grinnell, Univ. California Publ. Zool., vol. 21, No. 6, p. 239, Nov. 7, 1921.

1932. *Thomomys bottae amargosae* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 328, Feb. 27, 1932.

Type Locality.—Shoshone, Amargosa River, Inyo County, Calif. Altitude, 1,560 feet. *Range.*—Valley of Amargosa "River" (which leads into Death Valley), Inyo County. Zonal range, Lower Sonoran; vertical range, 1,500 to 1,600 feet.

Thomomys bottae providentialis Grinnell*

1931. *Thomomys providentialis* Grinnell, Univ. California Publ. Zool., vol. 38, No. 1, p. 1, Oct. 17, 1931.

1935. *Thomomys bottae providentialis* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 400, Mar. 13, 1935.

Type Locality.—Purdy, 6 miles southeast of New York Mountains, Providence Range, San Bernardino County, Calif. Altitude, 4,500 feet. *Range.*—In Nevada, southern Clark county, except valley of Colorado River proper (Hall, Mammals of Nevada, p. 477, July 1, 1946); and eastern half of San Bernardino County, Calif., exclusive of bottomlands along Colorado River (Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 270, Apr. 30, 1941). Zonal range, Lower Sonoran. Twelve-Mile Spring is the northernmost recorded occurrence in California (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 361, Dec. 15, 1952).

Thomomys bottae mohavensis Grinnell*

1918. *Thomomys perpallidus mohavensis* Grinnell, Univ. California Publ. Zool., vol. 17, No. 14, p. 427, Apr. 25, 1918.

1933. *Thomomys bottae mohavensis* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 143, Sept. 26, 1933.

Type Locality.—Mohave River bottom near Victorville, San Bernardino County, Calif. Altitude, 2,700 feet. *Range.*—Mohave Desert in western half of San Bernardino County, Calif. (Chattin, Trans. San. Diego Soc. Nat. Hist., vol. 9, No. 27, p. 269, Apr. 30, 1941). Also recorded from Lone Willow Spring and Grapevine Ranch, southern California (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, pp. 358–359, Dec. 15, 1952).

Thomomys bottae neglectus V. Bailey†*

1914. *Thomomys neglectus* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 117, July 10, 1914.

1933. *Thomomys bottae neglectus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 140, Sept. 26, 1933.

Type Locality.—Bear Flat Meadows, San Antonio Peak, San Gabriel Mountains, San Bernardino County, Calif. Altitude, 6,400 feet. *Range.*—Higher parts of San Gabriel Mountains, chiefly within Los Angeles County, from vicinity of type locality, as above, west to Boquet Canyon; also on mountains of which Mount Piños, Ventura County, Calif., is highest point; zonal range, Transition and high Upper Sonoran; vertical range, 3,500 to 8,500 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 140, Sept. 26, 1933).

Thomomys bottae altivallis Rhoads*

1895. *Thomomys altivallis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 34, Feb. 21, 1895.

1935. *Thomomys bottae altivallis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—San Bernardino Mountains, San Bernardino County, Calif. Altitude, 5,000 feet. *Range.*—Upper parts of San Bernardino Mountains, San Bernardino County; represented by specimens taken at localities from Doble south to Dry Lake, and west to Fawnskin Valley and Seven Oaks; zonal range, chiefly Transition but also includes Canadian locally; vertical range, 5,000 to 9,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 142, Sept. 26, 1933).

Thomomys bottae pallescens Rhoads*

1895. *Thomomys bottae pallescens* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 36, Feb. 21, 1895.

Type Locality.—Grapeland, about 10 miles northwest of San Bernardino, San Bernardino Valley, San Bernardino County, Calif. *Range.*—Pacific slopes of Los Angeles, San Bernardino, and Riverside Counties, but more than 10 miles inland from the seacoast, from vicinity of San Fernando southeast to San Bernardino and Riverside; also, in less typical form, up canyons and through passes of Sierra Liebre and San Gabriel Mountains to southern edge of Mohave Desert; zonal range, Lower Sonoran and locally Upper Sonoran; vertical range, 300 feet near Los Angeles to at least 3,800 feet near Cajon Pass (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 140, Sept. 26, 1933).

Thomomys bottae cabezonae Merriam†*

1901. *Thomomys cabezonae* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 110, July 19, 1901.

1935. *Thomomys bottae cabezonae* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—Cabezon, San Gorgonio Pass, Riverside County, Calif. Altitude, 1,791 feet. *Range.*—San Gorgonio Pass and adjacent foothills, Riverside County; recorded east to Whitewater, west to Banning, and south to Schains Ranch, on lower western slope of San Jacinto Mountains; zonal range, chiefly Upper Sonoran, but also Lower Sonoran toward east end of San Gorgonio Pass; vertical range, 1,100 to 4,900 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 141, Sept. 26, 1933).

Thomomys bottae jacinteus Grinnell and Swarth*

1914. *Thomomys jacinteus* Grinnell and Swarth, Proc. California Acad. Sci., ser. 4, vol. 4, p. 154, Dec. 30, 1914.

1935. *Thomomys bottae jacinteus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—Round Valley, San Jacinto Mountains, Riverside County, Calif. Altitude, 9,000 feet. *Range.*—Higher parts of San Jacinto Mountains, Riverside County, extending from 8,000 feet altitude in Tahquitz Valley up to 10,200 feet near summit of San Jacinto Peak; zonal range, high Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 141, Sept. 26, 1933).

Thomomys bottae perpallidus Merriam†*

1886. *Thomomys talpoides perpallidus* Merriam, Science, vol. 8, p. 588, Dec. 24, 1886.

1935. *Thomomys bottae perpallidus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 155, Oct. 31, 1935.

Type Locality.—Palm Springs [formerly Agua Caliente], Riverside County, Calif. (See Stephens, California mammals, p. 138, 1906.) *Range.*—Northeastern part of Coachella Valley from below Whitewater southeastward to vicinity of Thermal in Riverside County (Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 268, Apr. 30, 1941).

Thomomys bottae rupestris Chattin

1941. *Thomomys bottae rupestris* Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 272, Apr. 30, 1941.

Type Locality.—Two miles east of Clements Well, Riverside County, Calif. Altitude, 1,131 feet. *Range.*—Cottonwood, Orocopia and Chuckwalla Mountains in Riverside County, and Chocolate Mountains in north-central Imperial County, Calif.

Thomomys bottae riparius Grinnell and Hill

1936. *Thomomys perpallidus riparius* Grinnell and Hill, Journ. Mamm., vol. 17, No. 1, p. 4, Feb. 17, 1936.

1941. *Thomomys bottae riparius* Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 268, Apr. 30, 1941.

Type Locality.—Blythe, Riverside County, Calif. *Range.*—Palo Verde Valley, vicinity of Blythe, and Ford Dry Lake, 21½ miles west of Blythe, Riverside County, Calif. (Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 273, Apr. 30, 1941).

Thomomys bottae crassus Chattin

1941. *Thomomys bottae crassus* Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 274, Apr. 30, 1941.

Type Locality.—A mile and a half west of Niland, Imperial County, Calif. Altitude, 180 feet. *Range.*—Northern part of Imperial Valley; vicinity of Niland northeast of Alamo River, east side of Salton Sea, 100 feet or more below sea level in Imperial County.

Thomomys bottae albatus Grinnell*

1912. *Thomomys albatus* Grinnell, Univ. California Publ. Zool., vol. 10, No. 8, p. 172, June 7, 1912.

1933. *Thomomys bottae albatus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 143, Sept. 26, 1933.

Type Locality.—West side of Colorado River, at old Hanlon ranch, near Pilot Knob, Imperial County, Calif. (10 miles west of Yuma, Ariz.). *Range.*—In California, Colorado River bottomlands and irrigated tracts from Laguna Dam southward to Mexican boundary, and throughout major portion of irrigated land in Imperial Valley, Calif. (Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 278, Apr. 30, 1941); in Baja California, irrigated section of region south of Mexican boundary to El Major, east to Colorado River and west to limits of gravity water on east base of Cocopah Mountain Range (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 252, Aug. 31, 1945).

Thomomys bottae boregoensis Huey*

1939. *Thomomys bottae boregoensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 15, p. 70, Dec. 8, 1939.

1939. *Thomomys bottae aderrans* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 15, p. 71, Dec. 8, 1939. (Carrizo Creek, San Diego County, Calif. Regarded as identical with *boregoensis* by Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, pp. 275–276, Apr. 30, 1941.)

Type Locality.—Beatty Ranch, Borego Valley, San Diego County, Calif. *Range.*—Southern part of Coachella Valley in Riverside County; western quarter of Imperial County, along southwest side of Salton Sea southward at least to vicinity of Coyote Wells; also Borego Valley and vicinity of Carrizo Creek in San Diego County (Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 275, Apr. 30, 1941).

Thomomys bottae puertae Grinnell*

1914. *Thomomys nigricans puertae* Grinnell, Univ. California Publ. Zool., vol. 12, No. 9, p. 315, Nov. 21, 1914.

1915. *Thomomys bottae puertae* V. Bailey, North Amer. Fauna No. 39, p. 58, Nov. 15, 1915.

Type Locality.—La Puerta (Mason's Ranch), 5 miles west of Vallecitos, at lower end of La Puerta Valley, eastern San Diego County, Calif. *Range.*—La Puerta and San Felipe Valleys, on desert side of Cuyamaca Mountain Divide, in eastern San Diego County; zonal range, Lower Sonoran; vertical range, 1,900 to 2,500 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 141, Sept. 26, 1933).

Thomomys bottae affinis Huey*

1945. *Thomomys bottae affinis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 254, Aug. 31, 1945.

Type Locality.—Jacumba, San Diego County, Calif. *Range.*—Jacumba Valley on both sides of Mexican boundary.

Thomomys bottae nigricans Rhoads*

1895. *Thomomys fulvus nigricans* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 36, Feb. 21, 1895.

1915. *Thomomys bottae nigricans* V. Bailey, North Amer. Fauna No. 39, p. 56, Nov. 15, 1915. (Part.)

Type Locality.—Witch Creek, 7 miles west of Julian, San Diego County, Calif. Altitude, 2,753 feet. *Range.*—In California, San Diego district, interiorly from seacoast and yet almost altogether on western drainage slope, from Mexican boundary north to west base of San Jacinto Mountains; east to Santa Rosa Mountains, west to Escondido, and, at Mexican boundary, mouth of Tia Juana River (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 141, Sept. 26, 1933); in Baja California, along the international boundary from Nachoguero Valley westward to El Valle de Las Palmas, thence south to Las Cruces, which lies some 15 miles inland from Ensenada; does not at any point reach sea coast (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 253, Aug. 31, 1945). Zonal range, largely Upper Sonoran, but invades Transition locally; vertical range, from near sea level up to 7,500 feet (Santa Rosa Peak).

Thomomys bottae sanctidiegi Huey

1945. *Thomomys bottae sanctidiegi* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 258, Aug. 31, 1945.

Type Locality.—Balboa Park, San Diego, San Diego County, Calif. *Range.*—Coastal strip from vicinity of San Diego, Calif., to vicinity of Ensenada, Baja California.

Thomomys bottae lucidus Hall

1932. *Thomomys bottae lucidus* Hall, Proc. Biol. Soc. Washington, vol. 45, p. 67, Apr. 2, 1932.

Type Locality.—Las Palmas Canyon, 2 miles east of Gaskill's Tanks, mesquite association, west side of Laguna Salada (north of lat. 32° N.), Baja California, México. Vertical range, 200 feet. *Range.*—Known from type locality only.

Thomomys bottae cunicularis Huey

1945. *Thomomys bottae cunicularis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 252, Aug. 31, 1945.

Type Locality.—Los Palmitos, lat. 31°44′ N., long. 115°36′ W., western end of Pattie Basin, on southeastern base of Sierra Juárez (desert slope), Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae jaurezensis Huey*

1945. *Thomomys bottae juarezensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 255, Aug. 31, 1945.

Type Locality.—Laguna Hanson, Sierra Juárez, Baja California, México. *Range.*—Known from forested area on summit of Sierra Juárez.

Thomomys bottae jojobae Huey

1945. *Thomomys bottae jojobae* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 256, Aug. 31, 1945.

Type Locality.—Sangre de Cristo, lat. 31°52′ N., long. 116°06′ W., Baja California, México. *Range.*—Western foothills of Sierra Juárez in Valle de San Rafael, Baja California.

Thomomys bottae proximarinus Huey

1945. *Thomomys bottae proximarinus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 261, Aug. 31, 1945.

Type Locality.—Boca la Playa, lat. 31°32′ N., long. 116°38′ W., mesa bordering the sea, 16 miles west of Santo Tomás, Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae aphrastus Elliot*

1903. *Thomomys aphrastus* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, No. 12 (June), p. 219, Aug. 15, 1903.

1945. *Thomomys bottae aphrastus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 259, Aug. 31, 1945.

Type Locality.—San [=Santo] Tomás, 18 miles south of Ensenada, Baja California, México. Altitude, 50–100 feet. *Range.*—From Santo Tomás in Santo Tomás Valley eastward to extreme western end of El Valle de la Trinidad, thence south along foothills of Sierra San Pedro Mártir at least to Las Cabras; southward from Santo Tomás, the range of this race reaches coast at Johnson's Ranch, thence over coastal plain to or below San Quintín, Baja California (Huey, loc. cit.) Recorded also from San Antonio, Baja California (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 357, Dec. 15, 1952).

Thomomys bottae xerophilus Huey

1945. *Thomomys bottae xerophilus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 257, Aug. 31, 1945.

Type Locality.—Near Diablito Spring, summit of San Matías Pass, between Sierra Juárez and Sierra San Pedro Mártir, Baja California, México. *Range.*—San Matías Pass and eastern section of El Valle de la Trinidad, at least to Aguajita Spring; specimens from western part of El Valle de la Trinidad are not referable to this race, but are intergrades.

Thomomys bottae martirensis J. A. Allen*

1898. *Thomomys fulvus martirensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 147, Apr. 12, 1898.

1928. *Thomomys bottae martirensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 8, p. 89, Jan. 18, 1928.

Type Locality.—La Grulla Meadow, Sierra San Pedro Mártir, Baja California, México, altitude, 7,400 feet. (See Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 8, p. 89, Jan. 18, 1938.) *Range.*—Higher levels of Sierra San Pedro Mártir, Baja California, México (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 257, Aug. 31, 1945).

Thomomys bottae siccovallis Huey

1945. *Thomomys bottae siccovallis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 258, Aug. 31, 1945.

Type Locality.—El Cajón Canyon, lat. 30°54′ N., long. 115°10′ W., east base of Sierra San Pedro Mártir, Baja California, México. Altitude, 3,200 feet. *Range.*—Known only from the type locality, a very secluded canyon on desert side of Sierra San Pedro Mártir. Recorded also from Mattomi, Baja California (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 362, Dec. 15, 1952).

Thomomys bottae abbotti Huey*

1828. *Thomomys bottae abbotti* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 8, p. 89, Jan. 18, 1928.

Type Locality.—One mile east of El Rosario, lat. 30°03′ N., long. 115°48′ W., Baja California, México. *Range.*—Known only from environs of river bottom association at type locality, and to southeastward at San Fernando Mission; probably coastwise south from El Rosario, though as yet region is unexplored (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 261, Aug. 31, 1945).

Thomomys bottae catavinensis Huey

1931. *Thomomys bottae catavinensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 5, p. 45, Dec. 19, 1931.

Type Locality.—Cataviña, lat. 29° 54′ N., long. 114° 57′ W., Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae ruricola Huey

1949. *Thomomys bottae ruricola* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 4, p. 53, Jan. 31, 1949.

Type Locality.—Four miles north of Santa Catarina Landing, lat. 29° 35′ N., long. 115° 17′ W., Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae cactophilus Huey*

1929. *Thomomys bottae cactophilus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 15, p. 241, Feb. 27, 1929.

Type Locality.—Punta Prieta, lat. 28° 56′ N., long. 114° 12′ W., Baja California, México. *Range.*—Known from type locality and area near Pacific coast at Santa Rosalía Bay, Baja California, México.

Thomomys bottae borjasensis Huey

1945. *Thomomys bottae borjasensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 262, Aug. 31, 1945.

Type Locality.—San Borjas Mountains, lat. 28° 52′ N., long. 113° 53′ W., Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae rhizophagus Huey

1949. *Thomomys bottae rhizophagus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 4, p. 54, Jan. 31, 1949.

Type Locality.—Las Flores, 7 miles south of Bahía de Los Angeles, lat. 28° 50′ N., long. 113° 32′ W., Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae russeolus Nelson and Goldman†*

1909. *Thomomys bottae russeolus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 25, Mar. 10, 1909.

Type Locality.—San Angel, 16 miles west-southwest of San Ignacio, Baja California, México. *Range.*—Eastern side of the Vizcaíno Desert, Baja California.

Thomomys bottae homorus Huey

1949. *Thomomys bottae homorus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 4, p. 55, Jan. 31, 1949.

Type Locality.—One mile east of Rancho Lagunitas, lat. 28° 21′ N., long. 113° 15′ W., Baja California, México. *Range.*—Local populations found in suitable localities in hilly sections of extreme northeastern Vizcaíno Desert from vicinity of Calmallí (1,200 feet) eastward to summit of peninsular ridge near type locality.

Thomomys bottae incomptus Goldman†*

1939. *Thomomys bottae incomptus* Goldman, Proc. Biol. Soc. Washington, vol. 52, p. 29, Mar. 11, 1939.

Type Locality.—San Jorge, near Pacific coast, west of Pozo Grande and about 25 miles southwest of Comondú, southern Baja California, México. Altitude, 50 feet. *Range.*—Northern half of vast Magdalena Plain, with exception of very restricted coastal habitat of *litoris* (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 263, Aug. 31, 1945).

Thomomys bottae litoris Burt

1940. *Thomomys bottae litoris* Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 424, p. 1, Nov. 29, 1940.

Type Locality.—Stearns Point, west side of Magdalena Bay, Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae magdalenae Nelson and Goldman†*

1909. *Thomomys magdalenae* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 24, Mar. 10, 1909.

1943. *Thomomys bottae magdalenae* Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 147, May 15, 1943.

Type Locality.—Magdalena Island, Baja California, México. *Range.*—Known from type locality only.

Thomomys bottae imitabilis Goldman†*

1939. *Thomomys bottae imitabilis* Goldman, Proc. Biol. Soc. Washington, vol. 52, p. 30, Mar. 11, 1939.

Type Locality.—La Paz, southern Baja California, México. *Range.*—Known from type locality only. Probably limited to low, basinlike, desert plain bordering southern end of La Paz Bay, and forming a gap between Sierra de la Giganta and high mountains of Cape region of Baja California.

Thomomys bottae alticolus J. A. Allen*

1899. *Thomomys fulvus alticolus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 13, Mar. 4, 1899.

1915. *Thomomys bottae alticolus* V. Bailey, North Amer. Fauna No. 39, p. 60, Nov. 15, 1915.

Type Locality.—Sierra Laguna, Baja California, México. Altitude, 7,000 feet. *Range.*—Higher sections of Victoria Mountains in Cape district, Baja California.

Thomomys bottae anitae J. A. Allen*

1898. *Thomomys fulvus anitae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 146, Apr. 12, 1898.

1915. *Thomomys bottae anitae* V. Bailey, North Amer. Fauna No. 39, p. 59, Nov. 15, 1915.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Lower levels of Cape district, south of Magdalena Plain, excepting section about La Paz, which is occupied by *imitabilis* (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 14, p. 265, Aug. 31, 1945).

Thomomys bottae depauperatus Grinnell and Hill

1936. *Thomomys perpallidus depauperatus* Grinnell and Hill, Journ. Mamm., vol. 17, No. 1, p. 4, Feb. 17, 1936.

Type Locality.—East base of Tinajas Altas Mountains, 7 miles south of Raven Butte, Yuma County, Ariz. Altitude, 1,150 feet. *Range.*—Desert along eastern base of Tinajas Altas Mountains, a southern extension of Gila Mountains, Yuma County.

Thomomys bottae phasma Goldman†*

1933. *Thomomys fulvus phasma* Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 72, Apr. 27, 1933.

1934. *Thomomys bottae phasma* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 122, May 15, 1934.

Type Locality.—Two miles south of Tule Tank, Tule Desert, near Mexican border, Yuma County, Ariz. Altitude, 1,200 feet. *Range.*—In Arizona, from Wellton, Yuma County, southeast to Tule Tank, Tule Desert, near Mexican border (Goldman, North Amer. Fauna No. 59, p. 20, June 12, 1947).

Thomomys bottae chrysonotus Grinnell*

1912. *Thomomys chrysonotus* Grinnell, Univ. California Publ. Zool., vol. 10, No. 8, p. 174, June 7, 1912.

1931. *Thomomys fulvus flavidus* Goldman†, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 417, Oct. 19, 1931. (Parker, Yuma County, Ariz. Altitude, 350 feet. For status see Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.)

1935. *Thomomys bottae chrysonotus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Ehrenberg, Yuma County, Ariz. *Range.*—Alluvial bottomlands along east side of Colorado River from near Ehrenberg north to Parker, and adjoining gravelly mesa, Yuma County, Ariz. (Goldman, North Amer. Fauna No. 59, p. 15, June 12, 1947).

Thomomys bottae subsimilis Goldman†*

1933. *Thomomys fulvus subsimilis* Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 74, Apr. 27, 1933.

1935. *Thomomys bottae subsimilis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Harquahala Mountains, Yuma County, Ariz. Altitude, 3,000 feet. *Range.*—Harquahala Mountains, Yuma County. Zonal range, Lower Sonoran.

Thomomys bottae growlerensis Huey*

1937. *Thomomys bottae growlerensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 353, June 15, 1937.

Type Locality.—Seven miles east of Papago Well (or, exactly, along a well-wooded desert wash on southwestern side of a range of hills in southern end of Growler Valley), Pima County, Ariz. *Range.*—Desert from southern end of Growler Valley and Quitobaquito north to Bates Well in Growler Pass, between Growler Mountains and Bates Mountains, Pima County (Goldman, North Amer. Fauna No. 59, p. 22, June 12, 1947). Zonal range, Lower Sonoran.

Thomomys bottae comobabiensis Huey

1937. *Thomomys bottae comobabiensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 354, June 15, 1937.

Type Locality.—Five miles northwest of Sells, Pima County, Ariz. Altitude, approximately 2,400 feet. *Range.*—Basal slope of Comobabi Mountains, Pima County.

Thomomys bottae pusillus Goldman†*

1931. *Thomomys fulvus pusillus* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 422, Oct. 19, 1931.

1935. *Thomomys bottae pusillus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality.—Coyote Mountains [Quinlan Mountains, 40 miles west-southwest of Tucson], Pima County, Ariz. Altitude, 3,000 feet. *Range.*—Known from type locality only. Zonal range, Lower Sonoran.

Thomomys bottae modicus Goldman†*

1931. *Thomomys fulvus modicus* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 418, Oct. 19, 1931.

1934. *Thomomys bottae modicus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 122, May 15, 1934.

Type Locality.—La Osa, southern end of Altar Valley, near Mexican border, Pima County, Ariz. *Range.*—In Arizona, Altar Valley, upper part of Santa Cruz River Valley, and neighboring valleys and desert plains as far west as Sells, and east to Fort Huachuca, Cochise County; zonal range, Lower Sonoran; vertical range, 2,500 to 4,500 feet (Goldman, North Amer. Fauna No. 59, p. 28, June 12, 1947); and valleys of north-central Sonora near Sonora-Arizona line; recorded from Cerro Blanco, 35 miles northwest of Magdalena (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 40, Feb. 15, 1938).

Thomomys bottae hueyi Goldman*

1938. *Thomomys bottae hueyi* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 340, July 15, 1938.

Type Locality.—Spud Rock Ranger Station [25 miles due east of Tucson], Rincon Mountains, Pima County, Ariz. Altitude, 7,400 feet. *Range.*—Rincon Mountains, Ramsay Canyon and head of Miller Canyon in Huachuca Mountains, and possibly Whetstone Mountains, Cochise County, Ariz. (Goldman, North Amer. Fauna No. 59, p. 26, June 12, 1947). Zonal range, Transition.

Thomomys bottae catalinae Goldman†*

1931. *Thomomys fulvus catalinae* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 419, Oct. 19, 1931.

1935. *Thomomys bottae catalinae* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality.—Summerhaven, Santa Catalina Mountains, Pima County, Ariz. Altitude, 7,500 feet. *Range.*—Upper slopes of Santa Catalina Mountains, Pima County (Goldman, North Amer. Fauna No. 59, p. 25, June 12, 1947).

Thomomys bottae parvulus Goldman†*

1938. *Thomomys bottae parvulus* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 339, July 15, 1938.

Type Locality.—Pass between Santa Catalina and Rincon Mountains [25 miles east-northeast of Tucson], Pima County, Ariz. Altitude, 4,500 feet. *Range.*—Gravelly pockets in granitic formation in pass between Santa Catalina and Rincon Mountains, Pima County (Goldman, North Amer. Fauna No. 59, p. 26, June 12, 1947). Zonal range, Upper and Lower Sonoran; vertical range, 4,000 to 4,500 feet.

Thomomys bottae collinus Goldman†*

1931. *Thomomys fulvus collinus* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 421, Oct. 19, 1931.

1934. *Thomomys umbrinus chiricahuae* Nelson and Goldman†, Journ. Mamm., vol. 15, No. 2, p. 117, May 15, 1934. (Pinery Canyon, west slope of Chiricahua Mountains, Cochise County, Ariz.; altitude, 7,500 feet. For status see Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 147, May 15, 1943.)

1935. *Thomomys bottae collinus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality.—Fly Park, Chiricahua Mountains, Cochise County, Ariz. Altitude, 9,000 feet. *Range.*—Chiricahua Mountains, Cochise County (Goldman, North Amer. Fauna No. 59, p. 27, June 12, 1947). Zonal range, Transition and Canadian; vertical range, 5,000 to 9,700 feet.

Thomomys bottae extenuatus Goldman†*

1935. *Thomomys bottae extenuatus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 149, Oct. 31, 1935.

Type Locality.—Willcox, Cochise County, Ariz. Altitude, 4,000 feet. *Range.*—Desert plains and basal mountain slopes bordering Sulphur Springs Valley, and adjoining valleys near top of Continental Divide, extending east into San Simon Valley, north to Fort Grant, and west across upper part of San Pedro Valley to Oracle, southwestern Pinal County, Ariz. (Goldman, North Amer. Fauna No. 59, p. 24, June 12, 1947). Zonal range, Upper and Lower Sonoran.

Thomomys bottae grahamensis Goldman†*

1931. *Thomomys fulvus grahamensis* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 420, Oct. 19, 1931.

1935. *Thomomys bottae grahamensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality.—Graham Mountains [=Pinaleno Mountains], Graham County, Ariz. Altitude, 9,200 feet. *Range.*—Forested upper slopes of Graham Mountains, Graham County (Goldman, North Amer. Fauna No. 59, p. 23, June 12, 1947). Zonal range, Transition; vertical range, 6,100 to 9,200 feet.

Thomomys bottae alienus Goldman†*

1938. *Thomomys bottae alienus* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 338, July 15, 1938.

Type Locality.—Mammoth, San Pedro River, Pinal County, Ariz. Altitude, 2,400 feet. *Range.*—Bottoms of lower San Pedro River Valley near Mammoth, Pinal County, and bottoms of Gila River Valley above confluence of Gila and San Pedro eastward as far as Redrock, Grant County, southwestern New Mexico (Goldman, North Amer. Fauna No. 59, p. 19, June 12, 1947).

Thomomys bottae pinalensis Goldman†*

1938. *Thomomys bottae pinalensis* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 342, July 15, 1938. (Regarded as identical with *mutabilis* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 360, Dec. 15, 1952.)

Type Locality.—Oak Flat, 5 miles east of Superior, Pinal Mountains, Pinal County, Ariz. Altitude, 3,900 feet. *Range.*—Oak woods on upper slopes of Pinal Mountains, Pinal County (Goldman, North Amer. Fauna No. 59, p. 18, June 12, 1947). Zonal range, Upper Sonoran.

Thomomys bottae aridicola Huey*

1937. *Thomomys bottae aridicola* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 354, June 15, 1937.

Type Locality.—Ten miles south of Gila Bend (or, exactly, on Ajo Railroad right-of-way, about 2 miles north of Black Gap), Maricopa County, Ariz. Altitude, 900 feet. *Range.*—Desert near Black Gap, 10 miles south of Gila Bend, Maricopa County (Goldman, North Amer. Fauna No. 59, p. 21, June 12, 1947). Zonal range, Lower Sonoran.

Thomomys bottae cervinus J. A. Allen*

1895. *Thomomys cervinus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 203, June 29, 1895.

1935. *Thomomys bottae cervinus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Phoenix, Maricopa County, Ariz. *Range.*—Salt River and Gila River Valleys, near Phoenix, and southwest along latter watercourse to Gila Bend, where it intergrades with *aridicola* (Goldman, North Amer. Fauna No. 59, p. 17, June 12, 1947). Zonal range, Lower Sonoran; vertical range, 700 to 1,000 feet.

Thomomys bottae patulus Goldman†*

1938. *Thomomys bottae patulus* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 341, July 15, 1938.

Type Locality.—Bottomland along Hassayampa River, 2 miles below Wickenburg, Maricopa County, Ariz. Altitude, 2,000 feet. *Range.*—Known from type locality only.

Thomomys bottae mutabilis Goldman†*

1933. *Thomomys fulvus mutabilis* Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 75, Apr. 27, 1933.

1935. *Thomomys bottae mutabilis* Goldman, Proc. Biol. Soc. Washington, vol 48, p. 156, Oct. 31, 1935.

Type Locality.—Camp Verde, Yavapai County, Ariz. Altitude, 3,200 feet. *Range.*—Valleys and lower slopes of mountains in Verde and Salt River drainages along southern side of Mogollon Plateau from Camp Verde east to Gila Mountains, Graham County, Ariz. (Goldman, North Amer. Fauna No. 59, p. 17, June 12, 1947). Vertical range, 2,500 to 4,500 feet.

Thomomys bottae operosus Hatfield

1942. *Thomomys bottae operosus* Hatfield, Bull. Chicago Acad. Sci., vol. 6, No. 8, p. 151, Jan. 12, 1942.

Type Locality.—Six miles north of Yarnell, Peeples Valley, Yavapai County, Ariz. Altitude, 4,400 feet. *Range.*—Known from type locality only, perhaps restricted to Peeples Valley, which is somewhat isolated, midway between desert country of southern Arizona and high plateau to north.

Thomomys bottae desitus Goldman†*

1936. *Thomomys bottae desitus* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 113, Mar. 15, 1936.

Type Locality.—Big Sandy River, near Owen [about 4 miles southeast of Wickieup], Mohave County, Ariz. Altitude, 2,000 feet. *Range.*—Big Sandy River Valley, Mohave County, east to Kirkland, Yavapai County, Ariz. (Goldman, North Amer. Fauna No. 59, p. 14, June 12, 1947). Zonal range, Lower Sonoran; vertical range, 2,000 to 4,000 feet.

Thomomys bottae hualpaiensis Goldman†*

1936. *Thomomys bottae hualpaiensis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 114, Mar. 15, 1936.

Type Locality.—Hualpai Peak, Hualpai Mountains, Mohave County, Ariz. Altitude, 7,000 feet. *Range.*—Slopes of Hualpai Mountains, Mohave County (Goldman, North Amer. Fauna No. 59, p. 14, June 12, 1947). Zonal range, Transition; vertical range, 6,000 to 7,500 feet.

Thomomys bottae desertorum Merriam†*

1901. *Thomomys desertorum* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 114, July 19, 1901.

1935. *Thomomys bottae desertorum* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Mud Spring [=Muddy], Detrital Valley, Mohave County, Ariz. *Range.*—Lower Sonoran desert region of broad Detrital Valley and neighboring areas lying mainly at about 3,500 feet altitude in angle formed by bend of Colorado River north and west of Hualpai Mountains in northwestern Arizona; southern limit in Chemehuevis or Mohave Mountains, Mohave County (Goldman, North Amer. Fauna No. 59, p. 12, June 12, 1947).

Thomomys bottae virgineus Goldman†*

1937. *Thomomys bottae virgineus* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 133, Sept. 10, 1937.

Type Locality.—Beaverdam Creek, near confluence with Virgin River, at Littlefield [=Beaverdam], Mohave County, northwestern Arizona. Altitude, 1,500 feet. *Range.*—Virgin River Valley, below canyon traversed by river in breaking across fault line marked by Beaverdam Mountains on one side and Grand Wash Cliffs on the other, in Mohave County; east of Virgin Valley in extremely arid section near Pakoon Spring, along Grand Wash (Goldman, North Amer. Fauna No. 59, p. 7, June 12, 1947); Virgin River Valley in southeastern Nevada (Hall, Mammals of Nevada, p. 473, July 1, 1946); and extreme southwestern Utah, in Beaverdam Wash, Washington County, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 64, Aug. 15, 1946).

Thomomys bottae nicholi Goldman†*

1938. *Thomomys bottae nicholi* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 337, July 15, 1938. (Regarded as identical with *trumbullensis* by Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 70, Aug. 15, 1946.)

Type Locality.—Twenty miles south of Wolf Hole (on road to Parashonts), Shivwits Plateau, Mohave County, Ariz. Altitude, 5,000 feet. *Range.*—Shivwits Plateau region, on terrace between Hurricane Ledge on east and Grand Wash Cliffs on west, north of Grand Canyon, Mohave County, northwestern Arizona (Goldman, North Amer. Fauna No. 59, p. 7, June 12, 1947). Zonal range, Upper and Lower Sonoran; vertical range, 4,500 to 5,000 feet.

Thomomys bottae trumbullensis Hall and Davis*

1934. *Thomomys bottae trumbullensis* Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, p. 51, Feb. 9, 1934.

Type Locality.—Three miles south of Nixon Spring, Mount Trumbull, Mohave County, Ariz. Altitude, 6,500 feet. *Range.*—Lava and cinder area centered about Mount Trumbull on plateau near north rim of Grand Canyon, Ariz. (Goldman, North Amer. Fauna No. 59, p. 9, June 12, 1947). Zonal range, Upper Sonoran and Transition; vertical range, 6,000 to 7,000 feet.

Thomomys bottae fulvus (Woodhouse)†*

1852. *Geomys fulvus* Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 201.

1858. *Thomomys fulvus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 402, July 14, 1858.

1932. *Thomomys bottae nasutus* Hall, Proc. Biol. Soc. Washington, vol. 45, p. 96, June 21, 1932. (Type locality, west fork of Black River, Apache County, Ariz.; altitude, 7,550 feet. For status see Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.)

1932. *T*[*homomys*] *b*[*ottae*[*fulvus* Hall, Proc. Biol. Soc. Washington, vol. 45, p. 96, June 21, 1932.

Type Locality.—San Francisco Mountain, Coconino County, Ariz. *Range.*—In Arizona, the whole of elevated Coconino and Mogollon Plateau regions, extending from southern rim of Grand Canyon southeastward to White Mountains, Apache County; a spur from main range reaches south through high country to Bradshaw Mountains west of Verde River Valley, Yavapai County; zonal range, mainly Transition above 5,000 feet, but in Canadian on San Francisco and White Mountains (Goldman, North Amer. Fauna No. 59, p. 13, June 12, 1947); extends in New Mexico across Mogollon Mountain region west of Rio Grande to Sacramento, San Andreas, and Manzano Mountains, and northward along eastern base of Sangre de Cristos and into the Raton Range (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 231, Mar. 1, 1932). Recorded also from Fisher's Peak in southwestern Las Animas County, Colo. (Warren, The mammals of Colorado, . . . p. 160, 1942).

Thomomys bottae boreorarius Durham

1952. *Thomomys bottae boreorarius* Durham, Journ. Mamm., vol. 33, No. 4, p. 498, Nov. 19, 1952.

Type Locality.—Swamp Point, 18½ miles northwestward of Bright Angel Point, north rim of Grand Canyon, Coconino County, Ariz. Altitude, 7,522 feet. *Range.*—Known from type locality and vicinity which includes Muav Saddle (6,717 feet), ½ mile to the westward, and thence northward ⅔ mile down Saddle Canyon as far as Powell Spring (6,209 feet); also the northeast end of Powell Plateau (7,650 feet), which point is about 1 mile west of type locality.

Thomomys bottae absonus Goldman†*

1931. *Thomomys perpallidus absonus* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 425, Oct. 19, 1931.

1934. *T[homoys] b[ottae] absonus* Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, p. 52, Feb. 9, 1934.

Type Locality.—Jacob's Pools, House Rock Valley, Coconino County, Ariz. Altitude, 4,000 feet. *Range.*—In Arizona, probably restricted to House Rock Valley, on north side of Marble Canyon of Colorado River (Goldman, North Amer. Fauna No. 59, p. 10, June 12, 1947); and in southern Utah in Kane and Garfield Counties, in drainages of Kanab Creek, Johnson Creek, Paria River, and Escalante River (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 71, Aug. 15, 1946). Zonal range, Upper Sonoran.

Thomomys bottae alexandrae Goldman†*

1933. *Thomomys alexandrae* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 464, Oct. 15, 1933.

1935. *Thomomys bottae alexandrae* Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 449, Dec. 31, 1935.—Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 72, Aug. 15, 1946.

Type Locality.—Plain 5 miles southeast of Rainbow Lodge, near Navajo Mountain, Coconino County, Ariz. Altitude, 6,200 feet. *Range.*—Sagebrush-covered mesa south of Navajo Mountain, Coconino County, north to Soldier Spring (altitude, 8,600 feet) on Navajo Mountain in extreme southwestern San Juan County, Utah; in Arizona apparently isolated in a somewhat triangular area between precipitous canyon walls of Navajo and Pinto Creeks, which diverge to Colorado River (Goldman, North Amer. Fauna No. 59, p. 28, June 12, 1947); in Utah probably limited to area enclosed on north by Colorado and San Juan Rivers, on the east and west by Navajo and Piute Canyons, respectively (Durrant, loc. cit.).

Thomomys bottae muralis Goldman†*

1936. *Thomomys muralis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 112, Mar. 15, 1936.

1952. *Thomomys bottae muralis* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 359, Dec. 15, 1952.

Type Locality.—Lower end of Prospect Valley [about 25 miles west-southwest of Supai], Grand Canyon, Hualpai Indian Reservation, Coconino County, Ariz. Altitude, 4,500 feet. *Range.*—Isolated on terraces along inner gorge below outer rim in Prospect Valley, a lateral pocket within Grand Canyon, near eastern end of Hualpai Indian Reservation (Goldman, North Amer. Fauna No. 59, p. 30, June 12, 1947). Zonal range, Upper Sonoran.

Thomomys bottae peramplus Goldman†*

1931. *Thomomys fulvus peramplus* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 423, Oct. 19, 1931.

1935. *Thomomys bottae peramplus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality. Wheatfields Creek [about 27 miles east of Chin Lee], west slope of Tunitcha Mountains, Apache County, northeastern Arizona. Altitude, 7,000 feet. *Range.*—Tunitcha Mountains [=southern Chuska Mountains] from 7,000 feet on Wheatfields Creek up to 8,000 feet on upper slope of the range; occurs at 7,000 feet in Valley of St. Michaels on eastern side of Defiance Plateau, Apache County (Goldman, North Amer. Fauna No. 59, p. 12, June 12, 1937); and Chuska Mountains, San Juan County, N. Mex.

Thomomys bottae phelleoecus Burt

1933. *Thomomys phelleoecus* Burt, Journ. Mamm., vol. 14, No. 1, p. 56, Feb. 14, 1933.

1935. *Thomomys bottae phelleoecus* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 401, Mar. 13, 1935.

Type Locality.—Hidden Forest, Sheep Mountains, Clark County, Nev. Altitude, 8,500 feet. *Range.*—Sheep Mountains, Clark County (Hall, Mammals of Nevada, p. 475, July 1, 1946).

Thomomys bottae nanus Hall*

1932. *Thomomys bottae nanus* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 331, Feb. 27, 1932.

Type Locality.—South end of Belted Range, 5½ miles northwest of Whiterock Spring, Nye County, Nev. Altitude, 7,200 feet. *Range.*—Quinn Canyon Mountains south to near lat. 37° N.; from Pahute Mesa eastward to Irish Mountain, Lincoln County, Nev. (Hall, Mammals of Nevada, p. 474, July 1, 1946).

Thomomys bottae brevidens Hall

1932. *Thomomys bottae brevidens* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 330, Feb. 27, 1932.

Type Locality.—Breen Creek, Kawich Range, Nye County, Nev. Altitude 7,000 feet. *Range.*—Central Nye County from Fish Lake south to Cactus Flat and east to western base of Quinn Canyon Mountains (Hall, Mammals of Nevada, p. 470, July 1, 1946).

Thomomys bottae abstrusus Hall and Davis

1935. *Thomomys bottae abstrusus* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 391, Mar. 13, 1935.

Type Locality.—Fish Spring Valley, 2 miles southeast of Tulle Peak, Nye County, Nev. Altitude, 7,000 feet. *Range.*—Known only from northern part of Fish Spring Valley, Nye County (Hall, Mammals of Nevada, p. 469, July 1, 1946).

Thomomys bottae concisor Hall and Davis*

1935. *Thomomys bottae concisor* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 390, Mar. 13, 1935.

Type Locality.—Potts Ranch, Monitor Valley, Nye County, Nev. Altitude, 6,900 feet. *Range.*—Monitor Valley, Nye County (Hall, Mammals of Nevada, p. 468, July 1, 1946).

Thomomys bottae vescus Hall and Davis*

1935. *Thomomys bottae vescus* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 389, Mar. 13, 1935.

Type Locality.—South slope of Mount Jefferson, Toquima Range, Nye County, Nev. Altitude, 9,000 feet. *Range.*—Toquima Range, Nye County (Hall, Mammals of Nevada, p. 467, July 1, 1946).

Thomomys bottae curtatus Hall

1932. *Thomomys bottae curtatus* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 329, Feb. 27, 1932.

Type Locality.—San Antonio, Nye County, Nev. Altitude, 5,400 feet. *Range.*—Known from type locality only.

Thomomys bottae fumosus Hall

1932. *Thomomys bottae fumosus* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 329, Feb. 27, 1932.

Type Locality.—Milman Ranch, Moores Creek, 19 miles southeast of Millett P. O., Nye County, Nev. *Range.*—Great Smoky Valley and around southern end of Toyabe Mountain Range to Cloverdale Creek (Hall, Mammals of Nevada, p. 465, July 1, 1946).

Thomomys bottae lacrymalis Hall

1932. *Thomomys bottae lacrymalis* Hall, Univ. California Pub. Zool., vol. 38, No. 4, p. 328, Feb. 27, 1932.

Type Locality.—Arlemont [=Chiatovich Ranch], Fish Lake Valley, Esmeralda County, Nev. Altitude, 4,900 feet. *Range.*—Fish Lake Valley to south end of Walker Lake (Hall, Mammals of Nevada, p. 463, July 1, 1946).

Thomomys bottae solitarius Grinnell

1926. *Thomomys solitarius* Grinnell, Univ. California Publ. Zool., vol. 30, No. 6, p. 177, Dec. 10, 1926.

1932. *Thomomys bottae solitarius* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 333, Feb. 27, 1932.

Type Locality.—Finger-Rock Wash, Stewart Valley, Mineral County, Nev. Altitude, 5,400 feet. *Range.*—Eastern Mineral County and northern Esmeralda County, Nev. (Hall, Mammals of Nevada, p. 464, July 1, 1946).

Thomomys bottae cinereus Hall

1932. *Thomomys bottae cinereus* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 327, Feb. 27, 1932.

Type Locality.—Smith's Valley, West Walker River, Lyon County, Nev. Altitude, 4,700 feet. *Range.*—Valleys of West Walker and East Walker Rivers and downstream along Walker River as far as Walker Lake (Hall, Mammals of Nevada, p. 462, July 1, 1946).

Thomomys bottae lucrificus Hall and Durham

1938. *Thomomys bottae lucrificus* Hall and Durham, Proc. Biol. Soc. Washington, vol. 51, p. 15, Feb. 18, 1938.

Type Locality.—Eastgate, Churchill County, Nev. Altitude, 4,425 feet. *Range.*—Known only from Eastgate and at an elevation 600 feet higher along creek which flows westward from Desatoya Mountains to Eastgate (Hall, Mammals of Nevada, p. 461, July 1, 1946).

Thomomys bottae depressus Hall*

1932. *Thomomys bottae depressus* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 326, Feb. 27, 1932.

Type Locality.—Dixie Meadows (at south end of Humboldt Salt Marsh), Churchill County, Nev. Altitude, 3,500 feet. *Range.*—Area around Carson Sink and Humboldt Salt Marsh (Hall, Mammals of Nevada, p. 460, July 1, 1946).

Thomomys bottae canus V. Bailey†*

1910. *Thomomys canus* V. Bailey, Proc. Biol. Soc. Washington, vol. 23, p. 79, May 4, 1910.

1932. *T*[*homomys*] *b*[*ottae*] *canus* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 327, Feb. 27, 1932.

Type Locality.—Deep Hole, at north end of Smoke Creek Desert, Washoe County, Nev. *Range.*—Margins of Black Rock Desert from Deep Hole, Washoe County, southward to Carson River Valley, Lyon County; and from near Dayton, Lyon County, eastward to Fallon, Churchill County (Hall, Mammals of Nevada, p. 459, July 1, 1946).

Thomomys bottae centralis Hall*

1930. *Thomomys perpallidus centralis* Hall, Univ. California Publ. Zool., vol. 32, No. 6, p. 445, July 8, 1930.

1932. *Thomomys bottae centralis* Hall, Univ. California Publ. Zool., vol. 38, No. 4, p. 333, Feb. 27, 1932.

Type Locality.—Two and one half miles east of Baker (1¼ miles west of Nevada–Utah boundary on lat. 39° N.), White Pine County, Nev. Altitude, 5,700 feet. *Range.*—Extreme western Utah, in Millard, Beaver, and Iron Counties (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 44, Aug. 15, 1946); in Nevada, from Mount Moriah, White Pine County, southward over eastern Nevada, the Virgin River Valley excepted, across southern Nevada and northward to head of Amargosa River, southwestern Nye County (Hall, Mammals of Nevada, p. 471, July 1, 1946); and into extreme eastern San Bernardino County, Calif., along Colorado River near boundary between California and Nevada (Chattin, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 27, p. 271, Apr. 30, 1941).

Thomomys bottae latus Hall and Davis

1935. *Thomomys bottae latus* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 393, Mar. 13, 1935.

Type Locality.—Cherry Creek, White Pine County, Nevada. Altitude, 6,500 feet. *Range.*—Steptoe Valley, White Pine County (Hall, Mammals of Nevada, p. 471, July 1, 1946).

Thomomys bottae birdseyei Goldman†*

1937. *Thomomys bottae birdseyei* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 134, Sept. 10, 1937.

Type Locality.—Pine Valley Mountains, 5 miles east of Pine Valley, Washington County, Utah. Altitude, 8,300 feet. *Range.*—High mountains and plateaus of southwestern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 63, Aug. 15, 1946).

Thomomys bottae planirostris Burt*

1931. *Thomomys perpallidus planirostris* Burt, Proc. Biol. Soc. Washington, vol. 44, p. 38, May 8, 1931.

1934. *T[homomys] b[ottae] planirostris* Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, p. 51, Feb. 9, 1934.

Type Locality.—Zion National Park, Washington County, Utah. *Range.*—In Utah, Virgin River Valley from Zion National Park west to Beaverdam Mountains (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 66, Aug. 15, 1946); and in Arizona, terrace near Fredonia in extreme northwestern Coconino County and vicinity of Kanab Wash to the westward; apparently ranges into Arizona through Short Creek Valley along western and southern base of Vermilion Cliffs west of Fredonia (Goldman, North Amer. Fauna No. 59, p. 8 June 12, 1947).

Thomomys bottae dissimilis Goldman†*

1931. *Thomomys perpallidus dissimilis* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 425, Oct. 19, 1931.

1935. *Thomomys bottae dissimilis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—East slope of Mount Ellen, Henry Mountains, Garfield County, Utah. Altitude, 8,000 feet. *Range.*—Known from type locality only.

Thomomys bottae aureus J. A. Allen*

1893. *Thomomys aureus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 49, Apr. 28, 1893.

1901. *Thomomys latirostris* Merriam†, Proc. Biol. Soc. Washington, vol. 14, p. 107, July 19, 1901. (Little Colorado River, Painted Desert, Coconino County, Ariz. For status see Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.)

1935. *Thomomys bottae aureus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Bluff City [=Bluff], San Juan County, Utah (V. Bailey, North Amer. Fauna No. 39, p. 74, Nov. 15, 1915). *Range.*—Southeastern Utah east of Colorado River except in La Sal, Abajo, and Navajo Mountains (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 58, Feb. 15, 1951); Montezuma County (altitude, 3,500 feet) in extreme southwestern Colorado (Warren, The mammals of Colorado, . . . , p. 158, 1942); the San Juan River Valley in extreme northwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931),

p. 239, Mar. 1, 1932); and into northeastern Arizona along valley of Chin Lee [Chinle] Creek and the major part of Painted Desert region to Little Colorado River (Goldman, North Amer. Fauna No. 59, p. 11, June 12, 1947).

Thomomys bottae osgoodi Goldman†*

1931. *Thomomys perpallidus osgoodi* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 17, p. 424, Oct. 19, 1931.

1935. *Thomomys bottae osgoodi* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Hanksville, Wayne County, Utah. *Range.*—Eastern Utah in valleys of drainages of San Rafael, Dirty Devil, and Price Rivers (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 56, Aug. 15, 1946).

Thomomys bottae wahwahensis Durrant

1937. *Thomomys bottae wahwahensis* Durrant, Bull. Univ. Utah, vol. 28, No. 4, p. 3, Aug. 18, 1937.

Type Locality.—Wah Wah Springs, 30 miles west of Milford, Beaver County, Utah. Altitude, 6,500 feet. *Range.*—West-central Utah, in Wah Wah Mountains, and Pine Valley to the west of these mountains (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 58, Aug. 15, 1946).

Thomomys bottae lenis Goldman†*

1942. *Thomomys townsendii lenis* Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 75, June 25, 1942.

1946. *Thomomys bottae lenis* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 53, Aug. 15, 1946.

Type Locality.—Richfield, Sevier County, Utah. Altitude, 5,308 feet. *Range.*—Sevier River Valley from Piute County north to southwestern Juab and northeastern Millard Counties, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 53, August 15, 1946).

Thomomys bottae contractus Durrant*

1946. *Thomomys bottae contractus* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 50, Aug. 15, 1946.

Type Locality.—Scipio, Millard County, Utah. Altitude, 5,315 feet. *Range.*—Extreme eastern Millard and Beaver Counties, Utah.

Thomomys bottae convexus Durrant

1939. *Thomomys bottae convexus* Durrant, Proc. Biol. Soc. Washington, vol. 52, p. 159, Oct. 11, 1939.

Type Locality.—East side of Clear Lake, Millard County, Utah. Altitude, 4,600 feet. *Range.*—Delta Valley, west-central Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 47, Aug. 15, 1946).

Thomomys bottae tivius Durrant

1937. *Thomomys bottae tivius* Durrant, Bull. Univ. Utah, vol. 28, No. 4, p. 5, Aug. 18, 1937.

Type Locality.—Oak Creek Canyon, 6 miles east of Oak City, Millard County, Utah. Altitude, 6,000 feet. *Range.*—Limited to Canyon Mountains, Millard County, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 49, Aug. 15, 1946).

Thomomys bottae sevieri Durrant

1946. *Thomomys bottae sevieri* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 45, Aug. 15, 1946.

Type Locality.—Swasey Spring, House Mountains, Millard County, Utah. Altitude, 6,500 feet. *Range.*—Known from type locality only.

Thomomys bottae levidensis Goldman†*

1942. *Thomomys bottae levidensis* Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 76, June 25, 1942.

Type Locality.—Manti, Sanpete County, Utah. Altitude, about 5,500 feet. *Range.*—San Pitch River Valley, Sanpete County, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 54, Aug. 15, 1946).

Thomomys bottae bonnevillei Durrant

1946. *Thomomys bottae bonnevillei* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1. p. 41, Aug. 15, 1946.

Type Locality.—Fish Springs, Juab County, Utah. Altitude, 4,400 feet. *Range.*—Known from type locality only.

Thomomys bottae robustus Durrant

1946. *Thomomys bottae robustus* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 30, Aug. 15, 1946.

Type Locality.—Orr's Ranch, Skull Valley, Tooele County, Utah. Altitude, 4,300 feet. *Range.*—Skull Valley, Tooele County.

Thomomys bottae stansburyi Durrant

1946. *Thomomys bottae stansburyi* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 36, Aug. 15, 1946.

Type Locality.—South Willow Creek, Stansbury Mountains, Tooele County, Utah. Altitude, 7,500 feet. *Range.*—Stansbury Mountains, Tooele County.

Thomomys bottae minimus Durrant†*

1939. *Thomomys bottae minimus* Durrant, Proc. Biol. Soc. Washington, vol. 52, p. 161, Oct. 11, 1939.

Type Locality.—Stansbury Island, Great Salt Lake, Tooele County, Utah. *Range.*—Known from type locality only.

Thomomys bottae albicaudatus Hall

1930. *Thomomys perpallidus albicaudatus* Hall, Univ. California Publ. Zool., vol. 32, No. 6, p. 444, July 8, 1930.

1935. *Thomomys bottae albicaudatus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Provo, Utah County, Utah. Altitude, 4,510 feet. *Range.*—From area between Great Salt Lake and Wasatch Mountains south along western margin of central mountains of Utah to Sevier River in Juab County, west into Tooele County to Onaqui and Sheeprock Mountains (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 37, Aug. 15, 1946).

Thomomys bottae nesophilus Durrant*

1936. *Thomomys bottae nesophilus* Durrant, Bull. Univ. Utah, vol. 27, No. 2, p. 2, Oct. 3, 1936.

Type Locality.—Antelope Island, Great Salt Lake, Davis County, Utah. *Range.*—Known from type locality only.

Thomomys bottae aureiventris Hall

1930. *Thomomys perpallidus aureiventris* Hall, Univ. California Publ. Zool., vol. 32, No. 6, p. 444, July 8, 1930.

1935. *Thomomys bottae aureiventris* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 156, Oct. 31, 1935.

Type Locality.—Fehlman Ranch, 3 miles north of Kelton, Box Elder County, Utah. Altitude, 4,225 feet. *Range.*—Northwestern and extreme western Utah as far south as southern end of Deep Creek Mountains, Juab County (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 28, Aug. 15, 1946).

Thomomys bottae howelli Goldman†*

1936. *Thomomys bottae howelli* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 116, Mar. 15, 1936.

Type Locality.—Grand Junction, Mesa County, Colo. Altitude, 4,600 feet. *Range.*—Grand River Valley, Mesa County, central western Colorado; and between Colorado and Green Rivers south of Book Cliffs in eastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 58, Feb. 15, 1951).

Thomomys bottae optabilis Goldman†*

1936. *Thomomys bottae optabilis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 116, Mar. 15, 1936.

Type Locality.—Coventry, Naturita Creek Valley, Montrose County, Colo. Altitude, 6,500 feet. *Range.*—Cultivated flats between Naturita Creek and San Miguel River, southern Montrose County, southwestern Colorado.

Thomomys bottae internatus Goldman†*

1936. *Thomomys bottae internatus* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 115, Mar. 15, 1936.

Type Locality.—Salida, Chaffee County, Colo. Altitude, 7,000 feet. *Range.*—High valleys along eastern side of Rocky Mountains from upper Arkansas River Valley, Colo., south to northwestern Union County (Folsom) and Colfax County (mouth of Trinchera Pass), northeastern New Mexico.

Thomomys bottae apache V. Bailey†*

1910. *Thomomys apache* V. Bailey, Proc. Biol. Soc. Washington, vol. 23, p. 79, May 4, 1910.

1935. *Thomomys bottae apache* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality.—Lake La Jara, on the Jicarilla Apache Indian Reservation, Rio Arriba County, N. Mex. Altitude, 7,500 feet. *Range.*—Transition Zone at Lake La Jara, Stinking Spring Lake [Burford Lake], and Horse Lake on Jicarilla Apache Indian Reservation, Rio Arriba County (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 241, Mar. 1, 1932); and in Archuleta (Arboles) and La Plata (Bayfield) Counties, southwestern Colorado (Warren, The mammals of Colorado; . . . , p. 160, 1942).

Thomomys bottae pervagus Merriam†*

1901. *Thomomys aureus pervagus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 110, July 19, 1901.

1935. *Thomomys bottae pervagus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935.

Type Locality.—Española, Rio Arriba County, N. Mex. *Range.*—Upper Rio Grande and Rio Chama Valleys from Santa Fe north to Questa, Taos County, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 234, Mar. 1, 1932).

Thomomys bottae connectens Hall*

1936. *Thomomys bottae connectens* Hall, Journ. Washington Acad. Sci., vol. 26, No. 7, p. 296, July 15, 1936.

Type Locality.—Clawson Dairy, 5 miles north of Albuquerque, Bernalillo County, N. Mex. Altitude, 4,943 feet. *Range.*—Valley of Rio Grande in central New Mexico, probably from northern Socorro County northward to Bernalillo.

Thomomys bottae planorum Hooper

1940. *Thomomys bottae planorum* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 422, p. 5, Nov. 14, 1940.

Type Locality.—One and one-half miles southwest of San Mateo, Valencia County, N. Mex. Altitude, about 7,200 feet. *Range.*—Southern McKinley County and northern Valencia County from vicinity of San Mateo westward over plains and slopes of upper San Jose River Valley and southward on east side of Malpais at least to 11 miles south-southeast of Grants, Valencia County.

Thomomys bottae paguatae Hooper

1940. *Thomomys bottae paguatae* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 422, p. 4, Nov. 14, 1940.

Type Locality.—One-half mile north of Cebolleta [Seboyeta Post Office], Valencia County, N. Mex. Altitude, about 6,700 feet. *Range.*—Known only from vicinity of Cebolleta, but probably ranging southwestwardly toward Rio Puerco; probably inhabits flood plains and alluvial flats lying to the east and southeast of Mount Taylor.

Thomomys bottae collis Hooper

1940. *Thomomys bottae collis* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 422,, p. 7, Nov. 14, 1940.

Type Locality.—Shuman's Ranch, T. 6 N., R. 10 W., sec. 30, 30 miles south of Grants, Valencia County, N. Mex. Altitude, about 7,500 feet. *Range.*—Known only from localities on northeastern part of North Plains and on a western arm of Cebolleta Mesa; probably ranging at altitudes approximately between 7,000 and 9,000 feet on high plains and mesas south of Grants and north of Datil Mountains.

Thomomys bottae morulus Hooper

1940. *Thomomys fulvus morulus* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 422, p. 9, Nov. 14, 1940.

1951. *Thomomys bottae morulus* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 6, p. 70, Oct. 1, 1951.

Type Locality.—Bill Porter's Ranch, 8 miles southeast of Paxton, Valencia County, N. Mex. Altitude, 7,400 feet. *Range.*—Known only from areas about 7,500 feet in elevation on southeastern foothills of Zuni Mountains, northwestern New Mexico.

Thomomys bottae cultellus Kelson†*

1951. *Thomomys bottae cultellus* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 6, p. 64, Oct. 1, 1951.

Type Locality.—Halls Peak, Mora County, N. Mex. *Range.*—Northern New Mexico and extreme southern Colorado east of Sangre de Cristo Range.

Thomomys bottae actuosus Kelson†*

1951. *Thomomys bottae actuosus* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 6, p. 67, Oct. 1, 1951.

Type Locality.—Corona, Lincoln County, N. Mex. *Range.*—Mountainous parts of central New Mexico between Rio Grande and Pecos River from Mora southward to San Andres and Capitan Mountains.

Thomomys bottae ruidosae Hall*

1932. *Thomomys bottae ruidosae* Hall, Proc. Biol. Soc. Washington, vol. 45, p. 96, June 21, 1932.

Type Locality.—Ruidosa, Lincoln County, N. Mex. Altitude, 6,700 feet. *Range.*—Ruidosa, Lincoln County, south to Mescalero, Otero County, N. Mex. (Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 6, p. 71, Oct. 1, 1951.).

Thomomys bottae opulentus Goldman†*

1935. *Thomomys bottae opulentus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 150, Oct. 31, 1935.

Type Locality.—Las Palomas, on the Rio Grande, Sierra County, N. Mex. *Range.*—Rio Grande Valley from Socorro, Socorro County, south at least to Las Cruces, Dona Ana County, southwestern New Mexico.

Thomomys bottae lachuguilla V. Bailey†*

1902. *Thomomys aureus lachuguilla* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 120, June 2, 1902.

1938. *Thomomys bottae lachugilla* [sic] Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 55, Mar. 18, 1938.

Type Locality.—Arid foothills near El Paso, [dry wash, 1 mile northeast of El Paso], El Paso County, Tex. *Range.*—Gulches of lower foothills of Organ Mountains, Dona Ana County, N. Mex., and Franklin Mountains, El Paso County, Tex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 238, Mar. 1, 1932).

Thomomys bottae scotophilus Davis

1940. *Thomomys bottae scotophilus* Davis, Journ. Mamm., vol. 21, No. 2, p. 204, May 16, 1940.

Type Locality.—One and one-half miles west of Bat Cave, Sierra Diablo, Hudspeth County, Tex. *Range.*—Apparently restricted to higher parts of Sierra Diablo Range in Culberson and Hudspeth Counties, Tex.

Thomomys bottae guadalupensis Goldman†*

1936. *Thomomys bottae guadalupensis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 117, Mar. 15, 1936.

Type Locality.—McKittrick Canyon, Guadalupe Mountains, Culberson County, Tex. Altitude, 7,800 feet. *Range.*—Guadalupe Mountains of southern New Mexico and western Texas.

Thomomys bottae texensis V. Bailey†*

1902. *Thomomys fulvus texensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 119, June 2, 1902.

1935. *Thomomys bottae texensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935. (Regarded as a race of *umbrinus* by Blair, Occ. Pap. Mus. Zool. Univ. Michigan No. 403, p. 2, June 16, 1939; and regarded as a race of *bottae* by Davis and Buechner, Journ. Mamm., vol. 27, No. 3, pp. 265–266, Aug. 14, 1946.)

Type Locality.—Head of Limpia Creek, at 5,500 feet altitude, Davis Mountains, Jeff Davis County, Tex. *Range.*—Davis Mountains, Jeff Davis County.

Thomomys bottae limpiae Blair*

1939. *Thomomys bottae limpiae* Blair, Occ. Pap. Mus. Zool. Univ. Michigan No. 403, p. 2, June 16, 1939. (Regarded as a valid race of *bottae* by Davis and Buechner, Journ. Mamm., vol. 27, No. 3, pp. 266–270, Aug. 14, 1946.)

Type Locality.—Limpia Canyon, about one mile north of Fort Davis, Jeff Davis County, Tex. Altitude, 4,700 feet. *Range.*—Known from type locality only.

Thomomys bottae pervarius Goldman†*

1938. *Thomomys bottae pervarius* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 57, Mar. 18, 1938.

Type Locality.—Lloyd Ranch, 35 miles south of Marfa, Presidio County, Tex. Altitude, 4,200 feet. *Range.*—Known from type locality only.

Thomomys bottae limitaris Goldman†*

1936. *Thomomys lachuguilla limitaris* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 118, Mar. 15, 1936.

1938. *Thomomys bottae limitaris* Goldman, Proc. Biol. Soc. Washington, vol. 51, 55, Mar. 18, 1938.

Type Locality.—Four miles west of Boquillas, Brewster County, Tex. *Range.*—Northern side of Rio Grande Valley, from the "Big Bend" east at least to Devils River, and north to Castle Mountains, Tex.

Thomomys bottae confinalis Goldman†*

1936. *Thomomys lachuguilla confinalis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 119, Mar. 15, 1936.

1938. *Thomomys bottae confinalis* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 55, Mar. 18, 1938.

Type Locality.—Thirty-five miles east of Rock Springs [north fork of Guadalupe River, 15 miles west of Japonica, Kerr County], Tex. *Range.*—Known from type locality only.

Thomomys bottae toltecus J. A. Allen*

1893. *Thomomys toltecus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 52, Apr. 28, 1893.

1934. *Thomomys bottae toltecus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 121, May 15, 1934.

Type Locality.—Colonia Juárez, Chihuahua, México. Altitude, 4,500 feet. *Range.*—Plains and valleys of northwestern Chihuahua, and southwestern New Mexico.

Thomomys bottae divergens Nelson and Goldman†*

1934. *Thomomys bottae divergens* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 122, May 15, 1934.

Type Locality.—Four miles west of Huachinera, Río Bavispe, northeastern Sonora, México. Altitude, about 4,000 feet. *Range.*—Upper part of Bavispe River Valley and along Aros River Valley into western Chihuahua.

Thomomys bottae basilicae Benson and Tillotson*

1939. *Thomomys bottae occipitalis* Benson and Tillotson, Proc. Biol. Soc. Washington, vol. 52, p. 151, Oct. 11, 1939. (Not of Dice, Carnegie Inst. Washington Publ. 349, p. 125, June 1925; fossil, Rancho La Brea, Los Angeles County, Calif.)

1940. *Thomomys bottae basilicae* Benson and Tillotson, Proc. Biol. Soc. Washington, vol. 53, p. 93, June 28, 1940. (Substitute for *occipitalis* Benson and Tillotson.)

Type Locality. La Misión, 2 miles west of Magdalena, Sonora, México. *Range.*—Known from type locality only.

Thomomys bottae vanrossemi Huey

1934. *Thomomys bottae vanrossemi* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 1, p. 1, Aug. 10, 1934.

Type Locality.—Punta Peñascosa [=Punta Peñasca], Sonora, México. *Range.*—Known from type locality only.

Thomomys bottae estanciae Benson and Tillotson

1939. *Thomomys bottae estanciae* Benson and Tillotson, Proc. Biol. Soc. Washington, vol. 52, p. 152, Oct. 11, 1939.

Type Locality.—La Estancia, 6 miles north of Nacori, Sonora, México. *Range.*—Known from type locality only.

Thomomys bottae winthropi Nelson and Goldman†*

1934. *Thomomys bottae winthropi* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 122, May 15, 1934.

Type Locality.—Hermosillo, Sonora, México. *Range.*—River valleys and plains of central Sonora, north as far as Sáric and south to Ortiz (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 42, Feb. 15, 1938).

Thomomys bottae convergens Nelson and Goldman†*

1934. *Thomomys bottae convergens* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 123, May 15, 1934.

Type Locality.—Costa Rica Ranch, delta Río Sonora, about 40 miles west-southwest of Hermosillo, Sonora, México. *Range.*—Low desert plains of central western Sonora.

Thomomys bottae camoae Burt*

1937. *Thomomys bottae camoae* Burt, Occ. Pap. Mus. Zool. Univ. Michigan, No. 344, p. 1, Jan. 5, 1937.

Type Locality.—Camoa, Río Mayo, Sonora, México. *Range.*—Coastal plains of southern Sonora from Yaqui River Valley south probably to Sinaloa, México.

Thomomys bottae sinaloae Merriam†*

1901. *Thomomys sinaloae* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 108, July 19, 1901.

1934. *Thomomys bottae sinaloae* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 124, May 15, 1934.

Type Locality.—Altata, Sinaloa, México. *Range.*—Coastal plains of central Sinaloa.

Thomomys suboles Goldman†*

1928. *Thomomys fulvus suboles* Goldman, Proc. Biol. Soc. Washington, vol. 41, p. 203, Dec. 18, 1928.

1935. *Thomomys bottae suboles* Hall and Davis, Univ. California Publ. Zool., vol. 40, No. 10, p. 399, Mar. 13, 1935.

1935. *Thomomys suboles* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 157, Oct. 31, 1935. (See also Grinnell and Hill, Journ. Mamm., vol. 17, No. 1, p. 7, Feb. 17, 1937.)

Type Locality.—Alluvial bottom at Old Searchlight Ferry, Colorado River, about 40 miles northwest of Kingman (or 28 miles west of Chloride), Mohave County, Ariz. Altitude, 600 feet. *Range.*—Alluvial bottoms in an embayment of escarpment flanking Colorado River, near Old Searchlight Ferry, above Pyramid Canyon, and northwest of Kingman, Ariz. (Goldman, North Amer. Fauna No. 59, p. 29, June 12, 1947).

Thomomys harquahalae Grinnell and Hill*

1936. *Thomomys harquahalae* Grinnell and Hill, Journ. Mamm., vol. 17, No. 1, p. 7, Feb. 17, 1936.

Type Locality.—Ranegras Plain, 10 miles west of Hope [10 miles west-southwest of Vicksburg], Yuma County, Ariz. Altitude, about 1,250 feet. *Range.*—Lowest part of broad, open, grassy Ranegras Plain west of Hope, and northwest of Harquahala Mountains, Yuma County (Goldman, North Amer. Fauna No. 59, p. 31, June 12, 1947).

Thomomys pectoralis Goldman†*

1936. *Thomomys pectoralis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 3, p. 120, Mar. 15, 1936.

Type Locality.—Near Carlsbad Cave, Carlsbad Cave National Monument, Eddy County, N. Mex. *Range.*—Known only from type locality in Pecos River Valley, southeastern New Mexico.

Thomomys sturgisi Goldman†*

1938. *Thomomys sturgisi* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 56, Mar. 18, 1938.

Type Locality.—Sierra del Carmen, Coahuila, México. Altitude, 6,000 feet. *Range.*—Known from type locality only.

baileyi—group [86]

Thomomys baileyi baileyi Merriam†*

1901. *Thomomys baileyi* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 109, July 19, 1901.

1934. *Thomomys baileyi baileyi* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 124, May 15, 1934.

Type Locality.—Sierra Blanca (railway station at junction of Texas Pacific and Southern Pacific Railroads), Hudspeth County, Tex. *Range.*—Sierra Blanca, Hudspeth County, western Texas.

Thomomys baileyi mearnsi V. Bailey†*

1914. *Thomomys mearnsi* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 117, July 10, 1914.

1934. *Thomomys baileyi mearnsi* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 124, May 15, 1934.

Type Locality.—Gray Ranch, about 20 miles north of Mexican boundary, Animas Valley, Hidalgo County, N. Mex. Altitude, 5,000 feet. *Range.*—From Animas Valley, southwestern New Mexico, into elevated plains region of southeastern Arizona; recorded at San Bernardino near Mexican boundary and on open plain near Willcox in Sulphur Springs Valley, Ariz. (Goldman, North Amer. Fauna No. 59, p. 31, June 12, 1947).

Thomomys baileyi nelsoni Merriam†*

1901. *Thomomys nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 109, July 19, 1901.

1934. *Thomomys baileyi nelsoni* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 124, May 15, 1934.

Type Locality.—[Hidalgo del] Parral, Chihuahua, México. Altitude, 6,000 feet. *Range.*—Arid interior plains from northern Durango north through central Chihuahua at least to Gallego (Nelson and Goldman, loc. cit.).

Thomomys baileyi spatiosus Goldman†*

1938. *Thomomys baileyi spatiosus* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 58, Mar. 18, 1938.

Type Locality.—Alpine, Brewster County, Tex. Altitude, about 4,500 feet. *Range.*—Known from general region of type locality only.

Thomomys baileyi tularosae Hall*

1932. *Thomomys baileyi tularosae* Hall, Univ. California Publ. Zool., vol. 38, No. 11, p. 411, Sept. 20, 1932.

Type Locality.—Cook Ranch, one-half mile west of Tularosa, Otero County, N. Mex. *Range.*—Known from type locality only.

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[86] Subspecies listed by Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 124, May 15, 1934.

talpoides—group[87]

Thomomys talpoides talpoides (Richardson)*

1828. *Cricetus talpoides* Richardson, Zool. Journ., vol. 3, p. 518.

1858. *Thomomys talpoides* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 403, July 14, 1858.

1884. *Thomomys talpoides talpoides* True, Proc. U. S. Nat. Mus. vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

Type Locality.—Carlton House, near Fort Carlton, North Saskatchewan River, Saskatchewan, Canada. (See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 55, Apr. 28, 1893, and V. Bailey, North Amer. Fauna No. 39, p. 97, Nov. 15, 1915.) *Range.*—Northern Great Plains region from western edge of central Manitoba (Riding Mountain and Swan River), through central Saskatchewan north to Prince Albert National Park, and central Alberta (Edmonton, Elk Island National Park, Camrose) north to divide between North Saskatchewan and Athabaska Rivers drainage systems; in Saskatchewan (Indian Head, Moose Jaw, Yorkton) nearly to southern border (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 127, Jan. 24, 1947); south in Montana to Great Falls, Cascade County, and Big Snowy Mountains, Fergus County (V. Bailey, op. cit., p. 96).

Thomomys talpoides andersoni Goldman†*

1939. *Thomomys talpoides andersoni* Goldman, Journ. Mamm., vol. 20, No. 2, p. 235, May 15, 1939.

Type Locality.—Medicine Hat, on South Saskatchewan River, Alberta, Canada. *Range.*—Valleys of South Saskatchewan River and Milk River in southern Alberta; probably also in extreme northern Montana south of Milk River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 128, Jan. 24, 1947).

Thomomys talpoides loringi V. Bailey†*

1914. *Thomomys fuscus loringi* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 118, July 10, 1914.

1939. *Thomomys talpoides loringi* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—South Edmonton, Alberta, Canada. *Range.*—Known only from Edmonton and Moose Mountain, Alberta.

Thomomys talpoides rufescens Wied-Neuwied*

1839. *Thomomys rufescens* Wied-Neuwied, Nova Acta Phys.-Med. Acad. Caesar. Leop.-Carol., vol. 19, pt. 1, p. 378.

1915. *Thomomys talpoides rufescens* V. Bailey, North Amer. Fauna No. 39, p. 98, Nov. 15, 1915.

Type Locality.—The Minnetaree Village, now Old Fort Clark, about 6 miles south of Stanton, Oliver County, N. Dak. *Range.*—Greater part of North Dakota and eastern South Dakota; in Canada east to east side of Red River Valley

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[87] Comprises the *talpoides*, *fossor*, *quadratus*, and *douglasii* groups of V. Bailey, North Amer. Fauna No. 39, Nov. 15, 1915. Subspecies listed by Goldman, Journ. Mamm., vol. 20, No. 2, pp. 234–235, May 15, 1939. Arizona subspecies reviewed by Goldman, North Amer. Fauna No. 59, pp. 32–33, June 12, 1947; Nevada subspecies by Hall, Mammals of Nevada, pp. 445–450, July 1, 1946; Utah subspecies by Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, pp. 6–27, Aug. 15, 1946; and Washington subspecies by Dalquest and Scheffer, Amer. Nat., vol. 78, No. 778, pp. 423–450, September 1944.

(LaBroquerie and Marchand) in southern Manitoba, north to Selkirk Settlement, Aweme, Carberry, Oak Lake, Pembina River, Spruce Woods Forest Reserve, to Lake Dauphin; and Glen Ewen and Red Fox Lake northeast of Kendal in southeastern Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 129, Jan. 24, 1947).

Thomomys talpoides pierreicolus Swenk

1941. *Thomomys talpoides pierreicolus* Swenk, Missouri Valley Fauna, Lincoln, No. 4, p. 2, Mar. 1, 1941.

Type Locality.—Wayside, Dawes County, Nebr. *Range.*—Areas of soils of Pierre series, including Pierre clay and loam (Indian Creek, north of Story, Sioux County), Pierre silty clay loam and silt loam (Sand Creek Valley, northeast of Horn and 5 miles northwest of Chadron, Dawes County) and Pierre clay loam (Wayside, Dawes County), in extreme northwestern Nebraska. Probably the form recorded from southwestern and western South Dakota (Corral Draw, Pine Ridge Indian Reservation; Buffalo Gap and Elk Mountain, Custer County; Rapid City, Pennington County; Fort Meade and Smithville, Meade County; and Crow Buttes, Harding County), from the northern half of eastern edge of Wyoming (Newcastle, Weston County, and Moorcroft, Crook County) and from extreme southeastern Montana (Alzada, Carter County).

Thomomys talpoides cheyennensis Swenk

1941. *Thomomys talpoides cheyennensis* Swenk, Missouri Valley Fauna, Lincoln, No. 4, p. 5, Mar. 1, 1941.

Type Locality.—Two miles south of Dalton, Cheyenne County, Nebr. *Range.*—Areas of soils of Rosebud series, including Rosebud loam, silt loam, gravelly sandy loam and, less extensively, the fine and very fine sandy loams of the short-grass-covered Upper-Sonoran-Zone high plains of Kimball, southern Banner and western Cheyenne Counties, in extreme southwestern corner of Nebraska Panhandle. Presumably recorded also under name *clusius* as occurring in soils of Rosebud series in Upper Sonoran Zone of extreme northeastern Colorado, at Avalo and at Chimney Cliffs 30 miles northwest of Sterling (5,100 feet) in northwestern Logan County, and at Pawnee Buttes.

Thomomys talpoides bullatus V. Bailey†*

1914. *Thomomys talpoides bullatus* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 115, July 10, 1914.

Type Locality.—Powderville, Powder River County, southeastern Montana. *Range.*—Plains of eastern Montana and northwestern South Dakota; north to Cypress Hills, south of Maple Creek, southwestern Saskatchewan, apparently intergrading with *andersoni* in this area (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 128, Jan. 24, 1947). Also recorded from Pass [Parkman] and Dayton, Sheridan County, northern Wyoming (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 363, Dec. 15, 1952).

Thomomys talpoides pryori V. Bailey†*

1914. *Thomomys pryori* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 116, July 10, 1914.

1915. *Thomomys talpoides pryori* V. Bailey, North Amer. Fauna No. 39, p. 104, Nov. 15, 1915.

Type Locality.—Head of Sage Creek, Pryor Mountains, Carbon County, south-central Montana. Altitude, 6,000 feet. *Range.*—Pryor Mountains, Montana, east to Bighorn River, near Fort Custer.

Thomomys talpoides kelloggi Goldman†*

1939. *Thomomys talpoides kelloggi* Goldman, Journ. Mamm., vol. 20, No. 2, p. 237, May 15, 1939.

Type locality.—West Boulder Creek, Absaroka Mountains, 18 miles southeast of Livingston, Park County, south-central Montana. *Range.*—Known from type locality only.

Thomomys talpoides trivialis Goldman†*

1939. *Thomomys talpoides trivialis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 236, May 15, 1939.

Type Locality.—Near head of Big Timber Creek, about 15 miles northwest of Big Timber, Crazy Mountains, Sweetgrass County, south-central Montana. Altitude, 5,200 feet. *Range.*—Outlying ranges along eastern side of Rocky Mountains, including Big Belt, Castle, Crazy and Little Belt Mountains, in central Montana.

Thomomys talpoides saturatus V. Bailey†*

1914. *Thomomys fuscus saturatus* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 117, July 10, 1914.

1939. *Thomomys talpoides saturatus* Davis, The Recent mammals of Idaho, p. 253, Apr. 5, 1939.—Goldman; Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Silver, near Saltese, Coeur d'Alene Mountains, Missoula (now Mineral) County, northwestern Montana. *Range.*—Higher parts of Coeur d'Alene Mountains in northwestern Montana; northeastern Idaho from Weippe, Clearwater County, north to Canada (Davis, op. cit., p. 256); and into southern ranges of Selkirks in southeastern British Columbia; recorded from Goatfell (2,940 feet), on eastern base of Moyie Range, near Moyie River; Linklater Creek (about 2,400 feet) in foothills of Purcell Range on west side of Kootenay River northwest of Newgate, British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 129, Jan. 24, 1947).

Thomomys talpoides confinis Davis*

1937. *Thomomys talpoides confinis* Davis, Murrelet, vol. 18, No. 1–2 (January-May), p. 25, Sept. 4, 1937.

Type Locality.—Gird Creek, near Hamilton, Ravalli County, western Montana. *Range.*—Known only from vicinity of Hamilton; probably occurs throughout most of the Bitterroot Valley, Mont.

Thomomys talpoides tenellus Goldman†*

1939. *Thomomys talpoides tenellus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 238, May 15, 1939.

Type Locality.—Whirlwind Peak, Absaroka Range, Park County, Wyo. Altitude, 10,500 feet. *Range.*—Mountain region (including Teton Mountains, Absaroka Range, and Yellowstone National Park) of northwestern Wyoming and Beartooth Mountains in adjacent extreme southern Montana.

Thomomys talpoides caryi V. Bailey†*

1914. *Thomomys talpoides caryi* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 115, July 10, 1914.

Type Locality.—Head of Trapper Creek, Bighorn Mountains, Bighorn County, Wyo. Altitude, 9,500 feet. *Range.*—Canadian Zone on Bighorn Mountains, central northern Wyoming.

Thomomys talpoides nebulosus V. Bailey†*

1914. *Thomomys talpoides nebulosus* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 116, July 10, 1914.

Type Locality.—Jack Boyden's Ranch, 5 miles above mouth of Sand Creek Canyon, Black Hills, and 15 miles northeast of Sundance, Crook County, Wyo. Altitude, 3,750 feet. *Range.*—Black Hills, S. Dak., and Bear Lodge Mountains, Crook County, northwestern Wyoming (V. Bailey, North Amer. Fauna No. 39, p. 102, Nov. 15, 1915).

Thomomys talpoides clusius Coues†*

1875. *Thomomys clusius* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 27, p. 138, June 15, 1875.

1884. *Thomomys clusius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1915. *Thomomys talpoides clusius* V. Bailey, North Amer. Fauna No. 39, p. 100, November 15, 1915.

Type Locality.—Bridger Pass, 18 miles southwest of Rawlins, Carbon County, central southern Wyoming. *Range.*—Central Wyoming. Also recorded from J. K. Ranch, 5,900 feet, on Meadow Creek, Wind River, and Sage Creek, 8 miles northwest of Fort Washakie, Wyo. (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 363, Dec. 15, 1952).

Thomomys talpoides meritus Hall*

1951. *Thomomys talpoides meritus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 13, p. 221, Dec. 15, 1951.

Type Locality.—Eight miles north and 19½ miles east of Savery, Carbon County, Wyo. Altitude, 8,800 feet. *Range.*—Sierra Madre Mountain Range of southern Wyoming and northern Colorado.

Thomomys talpoides bridgeri Merriam†*

1901. *Thomomys bridgeri* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 113, July 9, 1901.

1939. *Thomomys talpoides bridgeri* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 14, 1939.

Type Locality.—Harvey's Ranch, now Montainview, on Smiths Fork, 4 miles (airline) southeast of Fort Bridger, Uinta County, southwestern Wyoming (see Hooper, Journ. Mamm., vol. 24, No. 4, p. 503, Nov. 17, 1943). *Range.*—Extreme southwestern Wyoming; in Idaho south and east of Snake River from near American Falls north to Victor (Davis, The Recent mammals of Idaho, p. 258, Apr. 5, 1939).

Thomomys talpoides ocius Merriam†*

1901. *Thomomys clusius ocius* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 114, July 19, 1901.

1915. *Thomomys ocius* V. Bailey, North Amer. Fauna No. 39, p. 107, Nov. 15, 1915.—Goldman, Journ. Mamm., vol. 20, No. 2, p. 233, May 14, 1939.

1946. *Thomomys talpoides ocius* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 17, Aug. 15, 1946.

Type Locality.—Harvey's Ranch, now Mountainview, on Smiths Fork, 4 miles (airline) southeast of Fort Bridger, Uinta County, southwestern Wyoming (see Hooper, Journ. Mamm., vol. 24, No. 4, p. 503, Nov. 17, 1943). *Range.*—Eastern Uintah County in northeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 47, Feb. 15, 1951); and along Henry's Fork in extreme southwestern Sweetwater County and Uinta County, Wyo. (Durrant, op. cit., p. 19).

Thomomys talpoides rostralis Hall and Montague*

1951. *Thomomys talpoides rostralis* Hall and Montague, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 3, p. 27, Feb. 28, 1951.

Type Locality.—One mile east of Laramie, Albany County, Wyo. Altitude, 7,164 feet. *Range.*—Southern Wyoming and south in mountains of Colorado to Arkansas River, but not including Colorado River drainage except in Grand County and part of Routt County.

Thomomys talpoides attenuatus Hall and Montague*

1951. *Thomomys talpoides attenuatus* Hall and Montague, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 3, p. 29, Feb. 28, 1951.

Type Locality.—Three and one-half miles west of Horse Creek Post Office, Laramie County, Wyo. Altitude, 7,000 feet. *Range.*—Southeastern Wyoming from Niobrara County south into Weld County, Colo.

Thomomys talpoides retrorsus Hall†*

1951. *Thomomys talpoides retrorsus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol 5, No. 8, p. 83, Oct. 1, 1951.

Type Locality.—Flagler, Kit Carson County, Colo. *Range.*—Western end of Arkansas Divide in Colorado from 8 miles south of Seibert westward to Colorado Springs.

Thomomys talpoides fossor J. A. Allen*

1893. *Thomomys fossor* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 51, Apr. 28, 1893.

1939. *Thomomys talpoides fossor* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Florida, La Plata County, Colo. Altitude, 7,200 feet. *Range.*—In northeastern Arizona, near tops of Tunitcha and Lukachukai Mountains (Goldman, North Amer. Fauna No. 59, p. 33, June 12, 1947); north-central and northwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 229, Mar. 1, 1932); mountains of Colorado, from La Plata, Archuleta, Costilla, and Huerfano Counties north to Colorado River drainage.

Thomomys talpoides macrotis F. W. Miller*

1930. *Thomomys talpoides macrotis* F. W. Miller, Proc. Colorado Mus. Nat. Hist., vol. 9, No. 3, p. 41, Dec. 14, 1930.

Type Locality.—D'Arcy Ranch, 2 miles north of Parker, Douglas County, Colo. Altitude, 5,700 feet. *Range.*—Known from type locality only.

Thomomys talpoides agrestis Merriam†*

1908. *Thomomys talpoides agrestis* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 144, June 9, 1908.

Type Locality.—Medano Ranch, 15 miles northeast of Mosca, San Luis Valley, Alamosa County, Colo. *Range.*—In San Luis Valley, from a few miles north of Moffatt, Saguache County, south as far as Mosca, Alamosa County; and thence south to San Acacio, Costilla County, Colo. (Warren, The mammals of Colorado, . . . , p. 163, 1942).

Thomomys talpoides taylori Hooper

1940. *Thomomys talpoides taylori* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 422, p. 11, Nov. 14, 1940.

Type Locality.—Six miles northeast of the summit of Mount Taylor, near Fernandez summer camp, Valencia County, N. Mex. Altitude, about 8,900 feet. *Range.*—Known only from yellow pine and Douglas fir belts above 8,500 feet in San Mateo Mountains, Valencia County.

Thomomys talpoides kaibabensis Goldman†*

1938. *Thomomys fossor kaibabensis* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 333, July 15, 1938.

1939. *Thomomys talpoides kaibabensis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—De Motte Park, Kaibab Plateau, Coconino County, Ariz. Altitude, 9,000 feet. *Range.*—Higher parts of well-forested Kaibab Plateau, which rises islandlike from arid plains or broad valleys toward the north and presents a sheer face along north side of deepest part of Grand Canyon, Ariz. (Goldman, North Amer. Fauna No. 59, p. 32, June 12, 1947).

Thomomys talpoides parowanensis Goldman†*

1938. *Thomomys fossor parowanensis* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 334, July 15, 1938.

1939. *Thomomys talpoides parowanensis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Brian Head, Parowan Mountains, Iron County, Utah. Altitude, 11,000 feet. *Range.*—High mountains of eastern Iron and Beaver Counties, and western Kane and Garfield Counties, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 22, Aug. 15, 1946).

Thomomys talpoides durranti Kelson*

1949. *Thomomys talpoides durranti* Kelson, Proc. Biol. Soc. Washington, vol. 62, p. 143, Aug. 23, 1949.

Type Locality.—Johnson Creek, 14 miles north of Blanding, San Juan County, Utah. Altitude, 7, 500 feet. *Range.*—Mountains east of Green and Colorado Rivers in Utah, bounded by southern flank of East Tavaputs Plateau on the north and Abajo [Blue] Mountains on the south.

Thomomys talpoides levis Goldman†*

1938. *Thomomys fossor levis* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 336, July 15, 1938.

1939. *Thomomys talpoides levis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Seven Mile Flat, 5 miles north of Fish Lake, Fish Lake Plateau, Sevier County, Utah. Altitude, 10,000 feet. *Range.*—Fish Lake Mountains in Sevier County south into Garfield County, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 24, Aug. 15, 1946).

Thomomys talpoides moorei Goldman†*

1938. *Thomomys fossor moorei* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 7, p. 335, July 15, 1938.

1939. *Thomomys talpoides moorei* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—One mile south of Fairview, Sanpete County, Utah. Altitude, 6,000 feet. *Range.*—Wasatch Mountains and Wasatch Plateau from Mount Timpanogos, Utah County, south to northern Sevier County; eastern Juab County east to western Carbon County and northwestern Emery County (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 47, Feb. 15, 1951).

Thomomys talpoides uinta Merriam†*

1901. *Thomomys uinta* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 112, July 19, 1901.

1939. *Thomomys talpoides uinta* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Black's Fork, north base of Gilbert's Peak, Uinta Mountains, Summit County, Utah. Altitude, 10,000 feet. *Range.*—Southern Summit County, south to West Tavaputs Plateau in Carbon County; eastern Utah and Wasatch Counties, east to western Uintah County, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 47, Feb. 15, 1951).

Thomomys talpoides ravus Durrant

1946. *Thomomys talpoides ravus* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 15, Aug. 15, 1946.

Type Locality.—Vernal–Manila Highway, 19 miles north of Vernal, Uintah County, Utah. Altitude, 8,000 feet. *Range.*—Uinta Mountains in Daggett, northern Uintah and Summit Counties, Utah.

Thomomys talpoides oquirrhensis Durrant

1939. *Thomomys talpoides oquirrhensis* Durrant, Bull. Univ. Utah, vol. 30, No. 5, p. 3, Oct. 24, 1939.

Type Locality.—Settlement Creek, Oquirrh Mountains, Tooele County, Utah. Altitude, 6,500 feet. *Range.*—Known only from Oquirrh Mountains, in Salt Lake, Tooele and Utah Counties, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 11, Aug. 15, 1946).

Thomomys talpoides wasatchensis Durrant

1946. *Thomomys talpoides wasatchensis* Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 8, Aug. 15, 1946.

Type Locality.—Midway, Wasatch County, Utah. Altitude, 5,500 feet. *Range.*—Wasatch Mountains and neighboring high valleys as far south as Spanish Fork Canyon, Utah County, Utah.

Thomomys talpoides idahoensis Merriam†*

1901. *Thomomys idahoensis* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 114, July 19, 1901.

1939. *Thomomys talpoides idahoensis* Davis, The Recent mammals of Idaho, p. 251, April 5, 1939.

Type Locality.—Birch Creek, 10 miles south of Nicholia, Lemhi County, Idaho. Altitude, about 6,400 feet (Bailey, North Amer. Fauna No. 39, p. 108, Nov. 15, 1915). *Range.*—Northwestern part of Snake River Plains from near Arco, Butte County, and Kaufman east to near Swan Valley, Bonneville County, and south on west side of Snake River to near Blackfoot, Bingham County, Idaho (Davis, loc. cit.).

Thomomys talpoides relicinus Goldman†*

1939. *Thomomys talpoides relicinus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 239, May 15, 1939.

Type Locality.—Twin Springs, 20 miles north of Minidoka, Snake River Desert, Minidoka County, Idaho. *Range.*—Known only from Snake River Desert, southern Idaho.

Thomomys talpoides fuscus Merriam†*

1891. *Thomomys clusius fuscus* Merriam, North Amer. Fauna No. 5, p. 69, July 30, 1891.

1901. *Thomomys myops* Merriam†, Proc. Biol. Soc. Washington, vol. 14, p. 112, July 19, 1901. (Conconully, east base of Cascade Range, Okanogan County, Wash. Regarded as a valid race of *talpoides* by Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939; and as identical with *fuscus* by Dalquest and Scheffer, Amer. Nat., vol. 78, p. 438, September 1944).

1939. *Thomomys talpoides fuscus* Davis, The Recent mammals of Idaho, p. 253, Apr. 5, 1939.—Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Summit Creek, in mountains at head of Big Lost River, Custer County, Idaho. Altitude, 8,000 feet. *Range.*—In Idaho, from Snake River at Acequia and Hagerman northward to drainage of Clearwater River (Davis, loc. cit.); eastern Washington, from Pullman, Whitman County, north to Canadian boundary, and in northern part of State west, north of Columbia River, to Cascade Mountains, and thence south, west of Columbia River, to Wenatchee and Merritt, Chelan County, Washington (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 438, September 1944); and in British Columbia apparently confined to southern parts of Monashee Range near Canadian boundary (lat. 49° N.), from east side of Okanagan Valley (Osoyoos–Bridesville Summit), to Kettle River (Cascade, Midway, Myer's Creek, Westbridge), and to Rossland, Trail, and near mouth of Pend-d'Oreille River in Columbia River Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 128, Jan. 24, 1947).

Thomomys talpoides falcifer Grinnell*

1926. *Thomomys falcifer* Grinnell, Univ. California Publ. Zool., vol. 30, No. 6, p. 180, Dec. 10, 1926.

1939. *Thomomys talpoides falcifer* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Bell's Ranch, Reese River Valley, Nye County, Nev. Altitude, 6,890 feet. *Range.*—Central Nevada; north and west of Unionville; south to head of Reese River; and east at least to Toyabe Mountains (Hall, Mammals of Nevada, p. 449, July 1, 1946).

Thomomys talpoides gracilis Durrant*

1939. *Thomomys quadratus gracilis* Durrant, Bull. Univ. Utah, vol. 29, No. 6, (Biol. Ser., vol. 3, No. 10), p. 3, Feb. 28, 1939.

1939. *Thomomys talpoides gracilis* Durrant, Bull. Univ. Utah, vol. 30, No. 5, p. 6, Oct. 24, 1939.

Type Locality.—Pine Canyon, 17 miles northwest of Kelton, Raft River Mountains, Box Elder County, Utah. Altitude, 6,600 feet. *Range.*—Mountainous regions of extreme northwestern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 6, Aug. 15, 1946); northeastern Nevada west to Santa Rosa Mountains north of Humboldt River and west into Eureka County and Monitor Mountain Range south of Humboldt River (Hall, Mammals of Nevada, p. 448, July 1, 1946); and central extreme southern Idaho.

Thomomys talpoides pygmaeus Merriam†*

1901. *Thomomys pygmaeus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 115, July 19, 1901.

1939. *Thomomys talpoides pygmaeus* Davis, The Recent mammals of Idaho, p. 252, Apr. 5, 1939.

Type Locality.—Montpelier Creek, about 10 miles northeast of Montpelier, Bear Lake County, Idaho. Altitude, 6,700 feet. *Range.*—East side of Snake River from near Idaho Falls south of Blackfoot, thence east into southwestern Wyoming and from there to vicinity of Montpelier, Bear Lake County, Idaho (Davis, loc. cit.). Recorded also from Daggett County, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 1, p. 14, Aug. 15, 1946).

Thomomys talpoides monoensis Huey

1934. *Thomomys quadratus monoensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 35, p. 373, May 31, 1934.

1939. *Thomomys talpoides monoensis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Kuhlee Ranch, Dexter Creek Meadow, at confluence of Dexter and Wet Creeks, 12 miles northwest of Benton, Mono County, Calif. Altitude, 6,800 feet. *Range.*—Mono County, Calif.; and higher areas along western boundary of Nevada from northern Douglas County south to northern end of White Mountains, Esmeralda County (Hall, Mammals of Nevada, p. 450, July 1, 1946).

Thomomys talpoides fisheri Merriam†*

1901. *Thomomys fuscus fisheri* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 111, July 19, 1901.

1939. *Thomomys talpoides fisheri* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Beckwith, Sierra Valley, Plumas County, Calif. *Range.*—Enters eastern borders of California at several points, from Plumas County, south to range of *monoensis*; vertical range, 5,000 to 9,200 feet; zonal range, Upper Sonoran and Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2,

p. 146, Sept. 26, 1933); southwestern Washoe County and Ormsby County east of range of *monticola*, northwestern Nevada (Hall, Mammals of Nevada, p. 449, July 1, 1946); and southwestern Idaho (Davis, The Recent mammals of Idaho, p. 258, Apr. 5, 1939).

Thomomys talpoides quadratus Merriam†*

1897. *Thomomys quadratus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 214, July 15, 1897.

1939. *Thomomys talpoides quadratus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—The Dalles, Wasco County, Oreg. *Range.*—Sagebrush plains of eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 260, Aug. 29, 1936); Modoc region of northeastern California, west to Macdoel, Siskiyou County, south to near Susanville, Lassen County; vertical range, from 4,200 feet (near Susanville) up to at least 8,700 feet (Warren Peak) on Warner Mountains; zonal range, Upper Sonoran, Transition, and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 145, Sept. 26, 1933); northwestern Nevada, east to Pine Forest Mountains, south to head of Smoke Creek and Granite Peak, and in an isolated colony on Pahrum Peak (Hall, Mammals of Nevada, p. 447, July 1, 1946).

Thomomys talpoides wallowa Hall and Orr*

1933. *Thomomys quadratus wallowa* Hall and Orr, Proc. Biol. Soc. Washington, vol. 46, p. 41, Mar. 24, 1933. (Regarded as identical with *fuscus* by V. Bailey, North Amer. Fauna No. 55 (June), p. 259, Aug. 29, 1936; and as a valid race by Dalquest and Scheffer, Amer. Nat., vol. 78, p. 437, September 1944.)

1939. *Thomomys talpoides wallowa* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type locality.—Catherine Creek, 7 miles east of Telocaset, Wallowa Mountains, Union County, Oreg. Altitude, 3,500 feet. *Range.*—Mountainous regions of southern Columbia, southern Garfield, and Asotin Counties in southeastern Washington above 2,500 feet; in northeastern Oregon, mountains above 2,500 feet in eastern Umatilla, Union, and Wallowa Counties (Drake and Booth, Walla Walla Coll. Publ. Dep. Biol. Sci. and Biol. Station, vol. 1, No. 3, p. 51, Nov. 25, 1952).

Thomomys talpoides aequalidens Dalquest*

1942. *Thomomys talpoides aequalidens* Dalquest, Murrelet, vol. 23, No. 1, p. 3, May 14, 1942.

Type locality.—Abel Place, 6 miles south-southeast of Dayton, Columbia County, Wash. Altitude, 2,200 feet. *Range.*—Eastern Walla Walla, northern Columbia, northern Garfield, and northern Asotin Counties in Washington from Snake River on the north, east into foothills of Blue Mountains between 900 and 2,500 feet elevations, west to eastern limits of city of Walla Walla, and south to Walla Walla River in Oregon (Drake and Booth, Walla Walla Coll. Publ. Dep. Biol. Sci. and Biol. Station, vol. 1, No. 3, p. 48, Nov. 25, 1952).

Thomomys talpoides whitmani Drake and Booth*

1952. *Thomomys talpoides whitmani* Drake and Booth, Walla Walla Coll. Publ. Dep. Biol. Sci. and Biol. Station, vol. 1, No. 3, p. 52, Nov. 25, 1952.

Type locality.—Whitman National Monument, 6 miles west of Walla Walla, Walla Walla County, Wash. Altitude, 750 feet. *Range.*—Walla Walla County, from Walla Walla and the base of lower foothills, westward to approximately halfway between Lowden and Touchet, northward to base of low rolling hills, and south to Walla Walla River.

Thomomys talpoides columbianus V. Bailey†*

1914. *Thomomys fuscus columbianus* V. Bailey, Proc. Biol. Soc. Washington, vol. 27, p. 117, July 10, 1914.

1939. *Thomomys talpoides columbianus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type locality.—Touchet, Walla Walla County, Wash. *Range.*—In Washington, western Walla Walla County west to Columbia River, north to Snake River, eastward along Snake River to boundary between Walla Walla and Columbia Counties, thence southward to about 4 miles west of Prescott, and westward along edge of rolling hills at about 1,000 feet altitude to within about 10 miles of Touchet, then south to Walla Walla River, and thence east and south along Walla Walla River to Milton (Drake and Booth, Walla Walla Coll. Publ. Dep. Biol. Sci. and Biol. Station, vol. 1, No. 3, p. 45, Nov. 25, 1952); and low, hot arid sagebrush country around Great Bend of Columbia River in northern Oregon (V. Bailey North Amer. Fauna No. 55 (June), p. 260, Aug. 29, 1936).

Thomomys talpoides devexus Hall and Dalquest*

1939. *Thomomys talpoides devexus* Hall and Dalquest, Murrelet, vol. 20, No. 1, p. 3, April 30, 1939.

1939. *Thomomys talpoides ericaeus* Goldman†, Journ. Mamm., vol. 20, No. 2, p. 243, May 15, 1939. (Badger Mountains, 8 miles southwest of Waterville, Douglas County, Wash.; altitude, 3,000 feet. Regarded as identical with *devexus* by Dalquest and Scheffer, Amer. Nat., vol. 78, p. 434, September 1944.)

Type Locality.—One mile west-southwest of Neppel, Grant County, Wash. *Range.*—Columbian plateau of central eastern Washington (Dalquest and Scheffer, loc. cit.).

Thomomys talpoides yakimensis Hall and Dalquest*

1939. *Thomomys talpoides yakimensis* Hall and Dalquest, Murrelet, vol. 20, No. 1, p. 4, Apr. 30, 1939.

1939. *Thomomys talpoides badius* Goldman†, Journ. Mamm., vol. 20, No. 2, p. 242, May 15, 1939. (Wenatchee, Chelan County, Wash. Regarded as identical with *yakimensis* by Goldman, Journ. Mamm., vol. 25, No. 4, p. 414, Dec. 12, 1944; and by Dalquest and Scheffer, Amer. Nat., vol. 78, p. 440, September 1944.)

Type Locality.—Selah, Yakima County, Wash. *Range.*—Yakima Valley area, east to Columbia River, north to Wenatchee Mountains, west to Cascade Mountains, and south probably to Simcoe Range, Wash. (Dalquest and Scheffer, loc. cit.).

Thomomys talpoides limosus Merriam†*

1901. *Thomomys limosus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 116, July 10, 1901.

1939. *Thomomys talpoides limosus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 235, May 15, 1939.

Type Locality.—White Salmon, Gorge of Columbia River, Klickitat County, Wash. *Range.*—Columbia River Valley from Paterson, Benton County, east to White Salmon, Klickitat County, Wash. (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 442, September 1944).

Thomomys talpoides shawi Taylor†*

1921. *Thomomys douglasii shawi* Taylor, Proc. Biol. Soc. Washington, vol. 34, p. 121, June 30, 1921.

1939. *Thomomys talpoides shawi* Hall and Dalquest, Murrelet, vol. 20, No. 1, p. 4, Apr. 30, 1939.

Type Locality.—Owyhigh Lake, Mount Rainier, Pierce County, Wash. Altitude, 5,100 feet. *Range.*—Central Cascade Mountains, from Mount Rainier south certainly to Signal Peak, Yakima County, Wash. (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 441, September 1944).

Thomomys talpoides immunis Hall and Dalquest*

1939. *Thomomys talpoides immunis* Hall and Dalquest, Murrelet, vol. 20, No. 1, p. 4, Apr. 30, 1939.

Type Locality.—Five miles south of Trout Lake, Klickitat County, Wash. *Range.*—From Trout Lake, Klickitat County, north at least to Mount Adams, Wash. (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 442, September 1944).

Thomomys talpoides douglasii (Richardson)*

1829. *Geomys douglasii* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 200.

1939. *Thomomys talpoides douglasii* Goldman, Journ. Mamm., vol. 20, No. 2, p. 234, May 15, 1939.

Type Locality.—Near mouth of the Columbia River; probably near Fort Vancouver (now Vancouver), Clark County, Wash. *Range.*—Pleistocene gravel terraces (locally known as plains) of Columbia River near Vancouver, Clark County (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 443, September 1944); and on Oregon side of Columbia River at Scapoose, some 20 miles northwest of Portland (V. Bailey, North Amer. Fauna No. 55 (June), p. 254, Aug. 29, 1936).

Thomomys talpoides louiei Gardner†*

1950. *Thomomys talpoides louiei* Gardner, Journ. Mamm., vol. 31, No. 1, p. 92, Feb. 21, 1950.

Type Locality.—Twelve miles north-northeast of Cathlamet (Crown-Zellerbach's Cathlamet Tree Farm), Wahkiakum County, Wash. Altitude, 2,500 feet. *Range.*—Known from type locality only.

Thomomys talpoides yelmensis Merriam†*

1899. *Thomomys douglasi yelmensis* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 21, Jan. 31, 1899.

1939. *Thomomys talpoides yelmensis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 235, May 15, 1939.

Type Locality.—Tenino, Yelm Prairie, Thurston County, Wash. *Range.*—Grand Mound Prairie, near Tenino, Thurston County; Vail Prairie, near Vail, Thurston County; and Rochester Prairie, near Rochester, Thurston County, Wash. (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 446, September 1944).

Thomomys talpoides glacialis Dalquest and Scheffer†*

1942. *Thomomys talpoides glacialis* Dalquest and Scheffer, Proc. Biol. Soc. Washington, vol. 55, p. 97, Aug. 13, 1942.

Type Locality.—Prairie 2 miles south of Roy, Pierce County, Wash. *Range.*—Known from vicinity of type locality only.

Thomomys talpoides tacomensis Taylor†*

1919. *Thomomys douglasii tacomensis* Taylor, Proc. Biol. Soc. Washington, vol. 32, p. 169, Sept. 30, 1919.

1939. *Thomomys talpoides tacomensis* Goldman, Journ. Mamm., vol. 20, No. 2, p. 235, May 15, 1939.

Type Locality.—Six miles south of Tacoma, Pierce County, Wash. *Range.*—Seemingly restricted to certain prairies near Steilacoom and prairies and some agricultural lands near Tacoma, Pierce County (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 445, September 1944).

Thomomys talpoides tumuli Dalquest and Scheffer†*

1942. *Thomomys talpoides tumuli* Dalquest and Scheffer, Proc. Biol. Soc. Washington, vol. 55, p. 96, Aug. 13, 1942.

Type Locality.—Seven miles north of Tenino, Thurston County, Wash. *Range.*—Known from type locality only.

Thomomys talpoides pugetensis Dalquest and Scheffer†*

1942. *Thomomys talpoides pugetensis* Dalquest and Scheffer, Proc. Biol. Soc. Washington, vol. 55, p. 96, Aug. 13, 1942.

Type Locality.—Four miles south of Olympia, Thurston County, Wash. *Range.*—Known from prairies in vicinity of type locality only.

Thomomys talpoides couchi Goldman†*

1939. *Thomomys talpoides couchi* Goldman, Journ. Mamm., vol. 20, No. 2, p. 243, May 15, 1939. (See also Hall and Dalquest, Murrelet, vol. 20, No. 2, pp. 38–39, Aug. 19, 1939.)

Type Locality.—Four miles north of Shelton, Mason County, Wash. *Range.*—Isolated prairies at southeastern base of Olympic Mountains; recorded from Scotts Prairie and Lost Lake Prairie, Mason County (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 447, September 1944).

Thomomys talpoides melanops Merriam†*

1899. *Thomomys melanops* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 21, Jan. 31, 1899.

1939. *Thomomys talpoides melanops* Goldman, Journ. Mamm., vol. 20, No. 2, p. 235, May 15, 1939.

Type Locality.—Timberline at head of Soleduc River, Olympic Mountains, Clallam County, Wash. *Range.*—Alpine meadows of high Olympic Mountains in Washington (Dalquest and Scheffer, Amer. Nat., vol. 78, p. 447, September 1944).

Thomomys talpoides incensus Goldman†*

1939. *Thomomys talpoides incensus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 240, May 15, 1939.

Type Locality.—Shuswap, Yale District, British Columbia, Canada. *Range.*—Thompson River Valley (Ashcroft, Kamloops) and South Thompson River (Shuswap); non-typical intergradation shown at north end of Okanagan Lake (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 128, Jan. 24, 1947).

Thomomys talpoides medius Goldman†*

1939. *Thomomys talpoides medius* Goldman, Journ. Mamm., vol. 20, No. 2, p. 241, May 15, 1939.

Type Locality.—Silver King Mine, summit of Toad Mountain, 6 miles south of Nelson, West Kootenay District, British Columbia, Canada. *Range.*—Vicinity of type locality on southwest arm of Kootenay Lake; limits of range undetermined.

townsendii—group [88]

Thomomys townsendii townsendii (Bachman)*

1839. *Geomys townsendii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, p. 105.

1893. *Thomomys townsendii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 61, Apr. 28, 1893.

1914. *Thomomys nevadensis atrogriseus* V. Bailey†, Proc. Biol. Soc. Washington, vol. 27, p. 118, July 10, 1914. (Nampa, Canyon County, Idaho.)

Type Locality.—Erroneously given as "Columbia River," but probably southern Idaho and very probably near Nampa, Canyon County, where Townsend's party camped to trade with Indians, Aug. 22, 1834 (V. Bailey, North Amer. Fauna No. 39, p. 42, Nov. 15, 1915). *Range.*—From near King Hill, Elmore County, Idaho, west along north side of Snake River to Weiser and thence into Valleys of Malheur and Owyhee Rivers of northeastern Oregon, and along south side of Snake River east as far as Homedale, Owyhee County, Idaho (Davis, Journ. Mamm., vol. 18, No. 2, p. 152, May 12, 1937).

Thomomys townsendii owyhensis Davis*

1937. *Thomomys townsendii owyhensis* Davis, Journ. Mamm., vol. 18, No. 2, p. 154, May 12, 1937.

Type Locality.—Castle Creek, 8 miles south of Oreana, Owyhee County, Idaho. *Range.*—Owyhee County south of Snake River from near Murphy east to Indian Cove.

Thomomys townsendii similis Davis*

1937. *Thomomys townsendii similis* Davis, Journ. Mamm., vol. 18, No. 2, p. 155, May 12, 1937.

Type Locality.—Pocatello, Bannock County, Idaho. *Range.*—On both sides of Snake River from American Falls northeast to Pingree, and east along Port Neuf River to Pocatello.

Thomomys townsendii elkoensis Davis*

1937. *Thomomys townsendii elkoensis* Davis, Journ. Mamm., vol. 18, No. 2, p. 151, May 12, 1937.

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[88] Subspecies revised by Davis, Journ. Mamm., vol 18, No. 2, pp. 145–158, May 12, 1937.

Type Locality.—Evans, Eureka County, Nev. *Range.*—Upper part of Humboldt River drainage system downriver to Carlin, Nev. (Hall, Mammals of Nevada, p. 452, July 1, 1946).

Thomomys townsendii nevadensis Merriam†*

1897. *Thomomys nevadensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 213, July 15, 1897.

1915. *Thomomys townsendi nevadensis* V. Bailey, North Amer. Fauna No. 39, p. 44, Nov. 15, 1915.

Type Locality.—Five miles west of Austin, Reese River bottomlands, Lander County, Nev. *Range.*—Known from vicinity of type locality only.

Thomomys townsendii bachmani Davis*

1937. *Thomomys townsendii bachmani* Davis, Journ. Mamm., vol. 18, No. 2, p. 150, May 12, 1937.

Type Locality.—Quinn River Crossing, Humboldt County, Nev. Altitude, 4,100 feet. *Range.*—Quinn River Valley, Little Humboldt River Valley, and Lower Humboldt River Valley from Toulon, upriver, to Battle Mountain in Nevada (Hall, Mammals of Nevada, p. 452, July 1, 1946) ; northward to Malheur Lake, Oreg.

Thomomys townsendii relictus Grinnell

1926. *Thomomys relictus* Grinnell, Univ. California Publ. Zool., vol. 30, No. 1, p. 2, Aug. 18, 1926.

1933. *Thomomys townsendii relictus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 137, Sept. 26, 1933.

Type Locality.—Two miles south of Susanville, Susan River Valley, Lassen County, Calif. *Range.*—Bed of Honey Lake Valley, Lassen County, where it exists in fine-grained, alluvial, and more or less alkaline soil in borderlands of Honey Lake proper (Wendel, Amedee) and thence up the Susan River as far as Susanville, Calif.; zonal range, Upper Sonoran; vertical range, 3,900 to 4,200 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 137, September 26, 1933).

monticola—group [89]

Thomomys monticola monticola J. A. Allen*

1893. *Thomomys monticolus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 48, Apr. 28, 1893.

1899. *Thomomys monticola pinetorum* Merriam†, North Amer. Fauna No. 16, p. 97, Oct. 28, 1899. (Sisson, west base of Mount Shasta, Siskiyou County, Calif. Regarded as identical with *monticola* by Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 146, Sept. 26, 1933, and by Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 146, May 15, 1943.)

1914. *Thomomys monticola premaxillaris* Grinnell, Univ. California Publ. Zool., vol. 12, No. 9, p. 312, Nov. 21, 1914. (Two miles south of South Yolla Bolly Mountain, Tehama County, Calif. Altitude, about 7,500 feet. Regarded as identical with *monticola* by Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 146, May 15, 1943.)

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[89] Subspecies listed by Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, pp. 146–147, May 15, 1943.

Type Locality.—Mount Tallac, El Dorado County, Calif. Altitude, 7,500 feet. *Range.*—Higher parts of northern Sierra Nevada, from Huntington Lake, Fresno County, north to Butte Creek, northeast of Mount Shasta, Siskiyou County, Calif.; vertical range, from 3,600 feet (near Sisson, Siskiyou County) up to at least 10,350 feet (Vogelsang Lake, Yosemite National Park); zonal range, Canadian and Hudsonian, Transition locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 146, Sept. 26, 1933); Sierra Nevada in southwestern Washoe, western Ormsby, and western Douglas Counties, Nev. (Hall, Mammals of Nevada, p. 451, July 1, 1946).

Thomomys monticola mazama Merriam†*

1897. *Thomomys mazama* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 214, July 15, 1897.

1915. *Thomomys monticola mazama* V. Bailey, North Amer. Fauna No. 39, p. 123, Nov. 15, 1915.

Type Locality.—Anna Creek, near Crater Lake, Mount Mazama, Klamath County, Oreg. Altitude, 6,000 feet. *Range.*—Cascade Mountains of Oregon from Columbia River south (V. Bailey, North Amer. Fauna No. 55 (June), p. 256, Aug. 29, 1936); and higher parts of Siskiyou, Scott, Salmon, and Trinity Mountains, from Oregon line, Siskiyou County, south to head of Grizzly Creek, Trinity County; zonal range, Canadian and Hudsonian, Transition locally; vertical range, from 4,500 to 7,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 146, Sept. 26, 1933).

Thomomys monticola helleri Elliot*

1903. *Thomomys helleri* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 165, May 7, 1903.

1915. *Thomomys monticola helleri* V. Bailey, North Amer. Fauna No. 39, p. 126, Nov. 15, 1915.

Type Locality.—Gold Beach, mouth of Rogue River, Curry County, Oreg. *Range.*—Coastal region of southwestern Oregon; recorded from mouth of Rogue River at Gold Beach and Wedderburn (V. Bailey, North Amer. Fauna No. 55 (June), p. 258, Aug. 29, 1936).

Thomomys monticola niger Merriam†*

1901. *Thomomys niger* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 117, July 19, 1901.

1943. *Thomomys monticola niger* Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 146, May 15, 1943.

Type Locality.—Seaton [=Mapleton], near mouth of Umpqua River [=head of tide water on Siuslaw River], Lane County, Oreg. *Range.*—Known only from near mouth of Umpqua River, at Scottsburg, and in Siuslaw River Valley at Mapleton, Deadwood, and Mercer (V. Bailey, North Amer. Fauna No. 55 (June), p. 256, Aug. 29, 1936).

Thomomys monticola nasicus Merriam†*

1897. *Thomomys nasicus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 216, July 15, 1897.

1915. *Thomomys monticola nasicus* V. Bailey, North Amer. Fauna No. 39, p. 125, Nov. 15, 1915.

Type Locality.—Farewell Bend, Deschutes River, Deschutes County, Oreg. *Range.*—Yellow pine forest east of Cascade Mountains, from Farewell Bend on Deschutes River to Fort Klamath, in Paulina and Yamsey Mountains, Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 259, Aug. 29, 1936).

Thomomys monticola hesperus Merriam†*

1901. *Thomomys hesperus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 116, July 19, 1901.

1943. *Thomomys monticola hesperus* Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 146, May 15, 1943.

Type Locality.—Tillamook, Tillamook County, Oreg. *Range.*—Coastal region of northwestern Oregon in Tillamook and southern Clatsop Counties (V. Bailey, North Amer. Fauna No. 55 (June), p. 255, Aug. 29, 1936).

Thomomys monticola oregonus Merriam†*

1901. *Thomomys douglasi oregonus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 115, July 19, 1901.

1943. *Thomomys monticola oregonus* Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 146, May 15, 1943.

Type Locality.—Ely, near Oregon City, Willamette Valley, Clackamas County, Oreg. *Range.*—Northwestern Oregon, from Hillsboro, Washington County, south to Pedee, Polk County, and east to Parkdale, Hood County (V. Bailey, North Amer. Fauna No. 55 (June), p. 254, Aug. 29, 1936).

umbrinus—group [90]

Thomomys umbrinus umbrinus (Richardson)*

1829. *Geomys umbrinus* Richardson, Fauna Boreali-Americana; . . ., vol. 1, p. 202.

1906. *Thomomys umbrinus* V. Bailey, Proc. Biol. Soc. Washington, vol. 19, p. 3, Jan. 29, 1906.

Type Locality.—Supposed to have been at "Cadadaguios, a town in the southwestern part of Louisiana"; but actually somewhere in southern México, probably in the vicinity of Boca del Monte, Veracruz [probably Puebla], (see V. Bailey, op. cit., pp. 3–6). *Range.*—Eastern edge of high plateau at Boca del Monte, eastern Veracruz, México; limits of range unknown (Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 106, May 15, 1934).

Thomomys umbrinus orizabae Merriam†*

1893. *Thomomys orizabae* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 145, Dec. 29, 1893.

1915. *Thomomys umbrinus orizabae* V. Bailey, North Amer. Fauna No. 39, p. 90, Nov. 15, 1915.

Type Locality.—Volcán de Orizaba, Puebla, México. Altitude, about 9,500 feet. *Range.*—Known from upper slopes of Volcán de Orizaba only.

Thomomys umbrinus martinensis Nelson and Goldman†*

1934. *Thomomys umbrinus martinensis* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 108, May 15, 1934.

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[90] Subspecies reviewed by Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, pp. 105–121, May 15, 1934.

Type Locality.—San Martín Texmelucán, western Puebla, México. Altitude, 7,400 feet. *Range.*—Elevated plains and lower slopes of hills in vicinity of type locality.

Thomomys umbrinus peregrinus Merriam†*

1893. *Thomomys peregrinus* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 146, Dec. 29, 1893.

1915. *Thomomys umbrinus peregrinus* V. Bailey, North Amer. Fauna No. 39, p. 91, Nov. 15, 1915.

Type Locality.—Salazar, México, México. Altitude, 10,300 feet. *Range.*—Upper slopes of Sierra de las Cruces, between Valley of México and Valley of Toluca, and neighboring parts of latter valley (Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 108, May 15, 1934).

Thomomys umbrinus tolucae Nelson and Goldman†*

1934. *Thomomys umbrinus tolucae* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 109, May 15, 1934.

Type Locality.—North slope, Volcán de Toluca, México, México. Altitude, 9,500 feet. *Range.*—Known from type locality only.

Thomomys umbrinus vulcanius Nelson and Goldman†*

1934. *Thomomys umbrinus vulcanius* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 109, May 15, 1934.

Type Locality.—Volcán de Popocatépetl, México, México. Altitude, 12,900 feet. *Range.*—Known only from near timberline on Volcán de Popocatépetl, México.

Thomomys umbrinus albigularis Nelson and Goldman†*

1934. *Thomomys umbrinus albigularis* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 106, May 15, 1934.

Type Locality.—El Chico, Sierra de Pachuca, Hidalgo, México. Altitude, 9,800 feet. *Range.*—Sierra de Pachuca, eastern Hidalgo.

Thomomys umbrinus supernus Nelson and Goldman†*

1934. *Thomomys umbrinus supernus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 110, May 15, 1934.

Type Locality.—Santa Rosa, about 7 miles northeast of Guanajuato, Guanajuato, México. Altitude, between 9,500 and 10,000 feet. *Range.*—High mountains of central Guanajuato.

Thomomys umbrinus pullus Hall and Villa

1948. *Thomomys umbrinus pullus* Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 14, p. 251, July 26, 1948.

Type Locality.—Five miles south of Pátzcuaro, Michoacán, México. Altitude, 7,800 feet. *Range.*—Known only from 3 to 5 miles south of Pátzcuaro.

Thomomys umbrinus newmani Dalquest*

1951. *Thomomys umbrinus newmani* Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 361, Nov. 14, 1951.

Type Locality.—Seven kilometers northwest of Palma (village 12 km. northwest of Salinas), San Luis Potosí, México. *Range.*—Known only from desert plains near city of Salinas in western San Luis Potosí.

Thomomys umbrinus potosinus Nelson and Goldman†*

1934. *Thomomys umbrinus potosinus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 111, May 15, 1934.

Type Locality.—La Tinaja, about 20 miles northeast of San Luis Potosí, San Luis Potosí, México. Altitude, 6,000 feet. *Range.*—Open plains of southwestern San Luis Potosí.

Thomomys umbrinus atrodorsalis Nelson and Goldman*

1934. *Thomomys umbrinus atrodorsalis* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 111, May 15, 1934.

Type Locality.—Alvarez, about 3 miles north-northwest of San Luis Potosí, San Luis Potosí, México. Altitude, 8,000 feet. *Range.*—Known from type locality only.

Thomomys umbrinus arriagensis Dalquest*

1951. *Thomomys umbrinus arriagensis* Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 361, Nov. 14, 1951.

Type Locality.—One kilometer south of Arriaga, San Luis Potosí, México. *Range.*—Known only from type locality on Plan de Arriaga, a small, high, arid plain near Guanajuato boundary southwest of city of San Luis Potosí.

Thomomys umbrinus zacatecae Nelson and Goldman†*

1934. *Thomomys umbrinus zacatecae* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 112, May 15, 1934.

Type Locality.—Berriozábal, Zacatecas, México. Altitude, 6,600 feet. *Range.*—High arid plains of southeastern Zacatecas.

Thomomys umbrinus enixus Nelson and Goldman†*

1934. *Thomomys umbrinus enixus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 112, May 15, 1934.

Type Locality.—Sierra Moroni, near Plateado, Zacatecas, México. Altitude, 8,500 feet. *Range.*—Upper slopes of Sierra Moroni, southern Zacatecas.

Thomomys umbrinus crassidens Nelson and Goldman†*

1934. *Thomomys umbrinus crassidens* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 113, May 15, 1934.

Type Locality.—Sierra de Valparaiso, about 13 miles west of Valparaiso, western Zacatecas, México. *Range.*—Known only from upper slopes of Sierra de Valparaiso.

Thomomys umbrinus durangi Nelson and Goldman†*

1934. *Thomomys umbrinus durangi* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 114, May 15, 1934.

Type Locality.—Durango, Durango, México. *Range.*—High plains along eastern base of Sierra Madre, southern Durango.

Thomomys umbrinus goldmani Merriam†*

1901. *Thomomys goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 108, July 19, 1901.

1934. *Thomomys umbrinus goldmani* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 115, May 15, 1934.

Type Locality.—Mapimi, Durango, México. Altitude, 3,800 feet. *Range.*—Arid interior basin, or sink, in northeastern Durango known as Bolsón de Mapimi; probably ranging into adjoining parts of southwestern Coahuila, México.

Thomomys umbrinus evexus Nelson and Goldman

1934. *Thomomys umbrinus evexus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 115, May 15, 1934.

Type Locality.—Mount San Gabriel, vicinity of Rosario, 10 miles northwest of Villa Ocampo, Río Florida, northwestern Durango, México. Altitude, between 7,000 and 9,000 feet. *Range.*—Known from type locality only.

Thomomys umbrinus perditus Merriam†*

1901. *Thomomys perditus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 108, July 19, 1901.

1934. *Thomomys umbrinus perditus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 115, May 15, 1934.

Typical Locality.—Lampazos de Naranjo, Nuevo León, México. *Range.*—Arid plains and high mountains in eastern Coahuila, northern Nuevo León, and north to western Texas.

Thomomys umbrinus analogus Goldman†*

1938. *Thomomys umbrinus analogus* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 59, Mar. 18, 1938.

Type Locality.—Sierra Guadalupe, 12 or 15 miles south of General Cepeda, southeastern Coahuila, México. *Range.*—High mountains and desert plains of southeastern Coahuila, México.

Thomomys umbrinus chihuahuae Nelson and Goldman†*

1934. *Thomomys umbrinus chihuahuae* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 114, May 15, 1934.

Type Locality.—Sierra Madre, about 65 miles east of Batopilas, Chihuahua, México. Altitude, 7,000 feet. *Range.*—Sierra Madre in southwestern Chihuahua, México.

Thomomys umbrinus madrensis Nelson and Goldman†*

1934. *Thomomys umbrinus madrensis* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 115, May 15, 1934.

Type Locality.—Pilares Canyon, 10 miles northeast of Colonia García, about 25 miles southwest of Casas Grandes, northwestern Chihuahua, México. Altitude, 6,400 feet. *Range.*—Known from type locality only.

Thomomys umbrinus caliginosus Nelson and Goldman†*

1934. *Thomomys umbrinus caliginosus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 116, May 15, 1934.

Type Locality.—Eight miles west of Altamirano, Sierra Madre, northwestern Chihuahua, México, near Sonora boundary [about 35 miles] west of Casas Grandes. Altitude, 8,000 feet. *Range.*—Known only along crest of Sierra Madre, northwestern Chihuahua.

Thomomys umbrinus emotus Goldman†*

1933. *Thomomys fulvus emotus* Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 76., Apr. 27, 1933.

1934. *Thomomys umbrinus emotus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 116, May 15, 1934.

Type Locality.—Animas Peak, Animas Mountains, Hidalgo County, N . Mex. Altitude, 8,000 feet. *Range.*—Known only from upper slopes of Animas Mountains, southwestern New Mexico.

Thomomys umbrinus intermedius Mearns†*

1897. *Thomomys fulvus intermedius* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 719, July 30, 1897.

1934. *Thomomys umbrinus intermedius* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 117, May 15, 1934.

Type Locality.—Summit of Huachuca Mountains, Cochise County, southern Arizona. Altitude, 9,000 feet. *Range.*—Known from type locality only.

Thomomys umbrinus burti Huey*

1932. *Thomomys burti* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 15, p. 158, July 28, 1932.

1934. *Thomomys umbrinus burti* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 117, May 15, 1934.

Type Locality.—Madera Canyon, Santa Rita Mountains, Santa Cruz County, Ariz. Altitude, 6,000 feet. *Range.*—Santa Rita Mountains, southern Arizona (Goldman, North Amer. Fauna No. 59, p. 34, June 12, 1947). Zonal range, Upper Sonoran and Transition; vertical range, 4,500 to 8,000 feet.

Thomomys umbrinus quercinus Burt and Campbell*

1934. *Thomomys burti quercinus* Burt and Campbell, Journ. Mamm., vol. 15, No. 2, p. 150, May 15, 1934.

1943. *Thomomys umbrinus quercinus* Goldman, Journ. Washington Acad. Sci., vol. 33, No. 4, p. 147, May 15, 1943.

Type Locality.—Peña Blanca Spring, Pajarito Mountains (=Tumacacori Mountains, near Mexican boundary, north of Monument 128), Santa Cruz County, Ariz. *Range.*—From 4,500 feet altitude at type locality in Pajarito Mountains to about 6,000 feet on pass over summit of Patagonia Mountains, Ariz. (Goldman, North Amer. Fauna No. 59, p. 35, June 12, 1947). Zonal range, Upper Sonoran.

Thomomys umbrinus proximus Burt and Campbell*

1934. *Thomomys burti proximus* Burt and Campbell, Journ, Mamm., vol. 15, No. 2, p. 151, May 15, 1934.

1943. *Thomomys umbrinus proximus* Goldman, Journ. Washington Acad. Sci., vol. 33, No. 5, p. 147, May 15, 1943.

Type Locality.—Old Parker Ranch (Pickett's Ranch on U. S. Geol. Surv. Patagonia Quadrangle, August 1905), 4 miles west of Greaterville, west slope of Santa Rita Mountains, Pima County, Ariz. Altitude, 4,800 feet. *Range.*—Recorded from west slope of Santa Rita Mountains at Empire Ranch, east of these mountains at Fort Huachuca, and at Arivaca, Ariz. (Goldman, North Amer. Fauna No. 59, p. 33, June 12, 1947). Zonal range, Upper Sonoran; vertical range, 4,500 to 4,800 feet.

Thomomys umbrinus sonoriensis Nelson and Goldman†*

1934. *Thomomys umbrinus sonoriensis* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 118, May 15, 1934.

Type Locality.—Ten miles east of Chinapa, Río Sonora Valley, northern Sonora, México. Altitude, 3,000 feet. *Range.*—Irregularly broken or mountainous region west of Sierra Madre in northeastern Sonora.

Thomomys umbrinus eximius Nelson and Goldman†*

1934. *Thomomys umbrinus eximius* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 118, May 15, 1934.

Type Locality.—Sierra de Choix, about 20 miles northeast of Choix, Sinaloa, México. Altitude, 5,000 feet. *Range.*—Upper slopes of Sierra de Choix, a western spur of Sierra Madre, northern Sinaloa.

Thomomys umbrinus atrovarius J. A. Allen*

1898. *Thomomys atrovarius* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 148, Apr. 12, 1898.

1934. *Thomomys umbrinus atrovarius* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 119, May 15, 1934.

Type Locality.—Tatemales, near Rosario, Sinaloa, México. *Range.*—Coastal plain from southern Sinaloa south to central Nayarit, México.

Thomomys umbrinus sheldoni V. Bailey†*

1915. *Thomomys sheldoni* V. Bailey, North Amer. Fauna No. 39, p. 93, Nov. 15, 1915.

1934. *Thomomys umbrinus sheldoni* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 113, May 15, 1934.

Type Locality.—Santa Teresa, 40 miles east of Acaponeta, Nayarit, México. Altitude, 6,800 feet. *Range.*—Upper slopes of Sierra Madre from northern Nayarit and extreme western Zacatecas north through western Durango to southwestern Chihuahua, México.

Thomomys umbrinus musculus Nelson and Goldman†*

1934. *Thomomys umbrinus musculus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 119, May 15, 1934.

Type Locality.—Pedro Pablo, about 22 miles east [=14 miles east-southeast] of Acaponeta, Sierra de Teponahuaxtla, Nayarit, México. Altitude, 3,500 feet. *Range.*—Tropical western slopes of Sierra Madre in southern Sinaloa and northern Nayarit, México.

Thomomys umbrinus extimus Nelson and Goldman†*

1934. *Thomomys umbrinus extimus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 119, May 15, 1934.

Type Locality.—Colomo, near Río de Ameca, southern Nayarit, México. Altitude, 600 feet. *Range.*—Arid tropical coastal plains in extreme southern Nayarit; probably intergrading to the northward with *atrovarius.*

Thomomys simulus simulus Nelson and Goldman†*

1934. *Thomomys simulus simulus* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 120, May 15, 1934.

Type Locality.—Alamos, southern Sonora, México. Altitude, 1,200 feet. *Range.*—River valleys and foothills up through oak belt of southeastern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 39, Feb. 15, 1938).

Thomomys simulus parviceps Nelson and Goldman†*

1934. *Thomomys simulus parviceps* Nelson and Goldman, Journ. Mamm., vol. 15, No. 2, p. 121, May 15, 1934.

Type Locality.—Chacala, western Durango, México. Altitude, 3,000 feet. *Range.*—Subtropical western slope of Sierra Madre in western Durango and probably adjoining parts of Sinaloa, México.

Subgenus MEGASCAPHEUS Elliot

1903. *Megascapheus* Elliot, Field Columb. Mus. Publ. 76, Zool. Ser., vol. 3, No. 11 (May), p. 190, July 25, 1903. (Type *Diplostoma bulbivorum* Richardson.)

Thomomys bulbivorus (Richardson)*

1829. *Diplostoma bulbivorum* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 206.

1858. *Thomomys bulbivorus* Baird, Mammals, *in* Rept. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 389, July 14, 1858.

1893. *Thomomys bulbivorus* Miller, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 57, April 28, 1893.

Type Locality.—Banks of the Columbia River, probably near Portland, Multnomah County, Oreg. *Range.*—Willamette Valley, Oreg., from Portland and Forest Grove south to Eugene, and west to Grand Ronde Valley (V. Bailey, North Amer. Fauna No. 55 (June), p. 249, Aug. 29, 1936).

Genus GEOMYS[61] Rafinesque

1817. *Geomys* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 45, November 1817. (Type *Geomys pinetis* Rafinesque=*Mus tuza* Barton.)

pinetis—group

Geomys pinetis pinetis Rafinesque*

1806. *Mus tuza* Barton, Mag. neuest. Zust. Naturk., vol. 12, p. 488, November 1806. (Restricted to pine barrens near Augusta, Richmond County, Ga., by Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, No. 7, p. 175, March 1898. Regarded as unavailable by Harper, Proc. Biol. Soc. Washington, vol. 65, p. 36, Jan. 19, 1952).

1817. *Geomys pinetis* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 45, November 1817. (Regarded as identical with *tuza* by Merriam, North Amer. Fauna No. 8, p. 113, Jan. 31, 1895.)

1875. *Geomys tuza* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 27, p. 132.

1884. *Geomys tuza* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.

Type Locality.—Georgia, in the region of the pines (restricted to Screven County, Ga., by Harper, loc. cit.). *Range.*—Pine woods of eastern Georgia, from Savannah River south at least to Sterling, Glynn County, and west to western Georgia, where it begins to merge with *mobilensis* (Bangs, loc. cit.).

Geomys pinetis mobilensis Merriam†*

1895. *Geomys tuza mobilensis* Merriam, North Amer. Fauna No. 8, p. 119, Jan. 31, 1895.

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[61] Revised by Merriam, North Amer. Fauna No. 8, pp. 109–145, Jan. 31, 1895.

1952. *Geomys pinetis mobilensis* Harper, Proc. Biol. Soc. Washington, vol. 65, p. 37, Jan. 29, 1952.

Type Locality.—Point Clear, Mobile Bay, Baldwin County, Ala. *Range.*—Locally in southern Alabama east of Tombigbee River, and north to Tuscaloosa County east of Warrior River (A. H. Howell, North Amer. Fauna No. 45, p. 59, Oct. 28, 1921); and adjacent part of northwestern Florida (Escambia and Santa Rosa Counties).

Geomys pinetis floridanus (Audubon and Bachman)*

1853. *Pseudostoma floridana* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, No. 30, pl. 150; text, vol. 3, p. 242.

1895. *Geomys tuza floridanus* Merriam, North Amer. Fauna No. 8, p. 115, Jan. 31, 1895.

1898. *Geomys floridanus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, No. 7, p. 176, March 1898.

1944. *G[eomys] t[uza] floridanus* Sherman, Proc. New England Zool. Club, vol. 23, p. 38, Aug. 30, 1944.

1952. *Geomys pinetis floridanus* Harper, Proc. Biol. Soc. Washington, vol. 65, p. 37, Jan. 29, 1952.

Type Locality.—St. Augustine, St. Johns County, Fla. *Range.*—Eastern Florida from St. Marys River south to Indian River; intergrades with *austrinus* at Orlando and Gainesville (Bangs, op. cit. p. 176). Recorded also on Spring Hill Plantation, near Thomasville, Thomas County, Ga. (Quay, Journ. Mamm., vol. 30, No. 1, p. 67, Feb. 14, 1949).

Geomys pinetis goffi Sherman

1944. *Geomys tuza goffi* Sherman, Proc. New England Zool. Club, vol. 23, p. 38, Aug. 30, 1944.

1952. *Geomys pinetis goffi* Harper, Proc. Biol. Soc. Washington, vol. 65, p. 37, Jan. 29, 1952.

Type Locality.—Eau Gallie, Brevard County, Fla. *Range.*—Known only from type locality, which consists of part of strip of Norfolk and St. Lucie fine sands bordering Indian River.

Geomys pinetis austrinus Bangs*

1898. *Geomys floridanus austrinus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, No. 7, p. 177, March 1898.

1952. *Geomys pinetis austrinus* Harper, Proc. Biol. Soc. Washington, vol. 65, p. 37, Jan. 29, 1952.

Type Locality.—Belleair, Pinellas County, Fla. *Range.*—Western part of Florida Peninsula.

Geomys colonus Bangs*

1898. *Geomys colonus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, No. 7, p. 178, March 1898.

Type Locality.—Arnot Plantation, about 4 miles west of St. Marys, Camden County, Ga. *Range.*—Pine woods of Camden County, Ga., probably north to Satilla River.

Geomys fontanelus Sherman

1940. *Geomys fontanelus* Sherman, Journ. Mamm., vol. 21, No. 3, p. 341, Aug. 13, 1940.

Type Locality.—About 7 miles northwest of Savannah, Chatham County, Ga. *Range.*—Norfolk very fine sand in vicinity of type locality.

Geomys cumberlandius Bangs*

1898. *Geomys cumberlandius* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, No. 7, p. 180, March 1898.

Type Locality.—"Stafford Place," Cumberland Island, Camden County, Ga. *Range.*—Known from Cumberland Island only.

Geomys bursarius bursarius (Shaw)*

1800. *Mus bursarius* Shaw, Trans. Linn. Soc. London, vol. 5, p. 227.
1829. *Geomys bursarius* Richardson, Fauna Boreali-Americana, . . . , vol. 1, p. 203.
1884. *Geomys bursarius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.
1931. *Geomys bursarius bursarius* Komarek and Spencer, Journ. Mamm., vol. 12, No. 4, p. 406, Nov. 11, 1931.

Type Locality.—Elk River, Sherburne County, Minn. (restricted by Swenk, Missouri Valley Fauna, Lincoln, No. 1, p. 6, Dec. 5, 1939). *Range.*—Upper Mississippi Valley, from southeastern Missouri, north through Iowa east of Des Moines River, eastern South Dakota east of James River, and eastern North Dakota east of western beach lines of post-glacial Lake Agassiz (V. Bailey, North Amer. Fauna No. 49 (December 1926), pp. 125–126, Jan. 8, 1927) to extreme southern Manitoba at a point 2 miles north of international boundary and 11½ miles east-northeast of Emerson (Soper, Canadian Field-Nat., vol. 58, No. 3, pp. 71–72, Aug. 28, 1944) and to Kitson, Cass (Cass Lake), and Carlton Counties in northern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 83, 1945) and Bayfield County in northwestern Wisconsin.

Geomys bursarius illinoensis Komarek and Spencer*

1931. *Geomys bursarius illinoensis* Komarek and Spencer, Journ. Mamm., vol. 12, No. 4, p. 405, Nov. 11, 1931. (Regarded as a species by Lyon, Amer. Midl. Nat., vol. 17, No. 1, p. 216, January 1936.)

Type Locality.—One mile south of Momence, Kankakee County, Ill. *Range.*—East of Mississippi River and south of Illinois River in southern Illinois; and Newton and Jasper Counties in northwestern Indiana.

Geomys bursarius majusculus Swenk*

1939. *Geomys bursarius majusculus* Swenk, Missouri Valley Fauna, Lincoln, No. 1, p. 6, Dec. 5, 1939.

Type Locality.—Lincoln, Lancaster County, Nebr. *Range.*—Eastern Nebraska (Knox, Pierce, eastern Madison, eastern Platte, Polk, Hamilton, Adams and Webster Counties, east to Missouri River) and adjacent portions of southeastern South Dakota, east through western and northern Iowa at least to Marion County in Des Moines River Valley; and south to northeastern Kansas, westward certainly to Clay and Marion Counties and southward certainly to Greenwood County (Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 223, Nov. 29, 1947).

Geomys bursarius levisagittalis Swenk*

1940. *Geomys lutescens levisagittalis* Swenk, Missouri Valley Fauna, Lincoln, No. 2, p. 4, Feb. 1, 1940.

1947. *Geomys bursarius levisagittalis* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 234, Nov. 29, 1947.

Type Locality.—Spencer, Boyd County, Nebr. *Range.*—Known only from type locality north of Niobrara River, but probably present in sandy soil areas in stream bottoms in Boyd County, Nebr., and adjacent areas in Boyd–Hall soil area west of Missouri River in Nebraska and South Dakota.

Geomys bursarius hylaeus Blossom*

1938. *Geomys lutescens hylaeus* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 368, p. 1, Apr. 6, 1938.

1947. *Geomys bursarius hylaeus* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 234, Nov. 29, 1947.

Type Locality.—Ten miles south of Chadron, Dawes County, Nebr. *Range.*—Pine-clad and deeply eroded canyons of northern escarpment of Pine Ridge in Sioux County together with Hat Creek Basin lying directly north of this escarpment; eastward along Pine Ridge well on to Dawes Table south of White River in Dawes County (Crawford, Chadron), but replaced by more typical *lutescens* on sand hills south of Niobrara River in Sheridan County, Nebr. (Swenk, Missouri Valley Fauna, Lincoln, No. 2, p. 9, Feb. 1, 1940).

Geomys bursarius vinaceus Swenk

1940. *Geomys lutescens vinaceus* Swenk, Missouri Valley Fauna, Lincoln, No. 2, p. 7, Feb. 1, 1940.

1947. *Geomys bursarius vinaceus* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 234, Nov. 29, 1947.

Type Locality.—Scottsbluff, Scotts Bluff County, Nebr. *Range.*—Sandy valley areas of high plains of southern part of Nebraska Panhandle; and Laramie County in extreme southeastern Wyoming and south of South Platte River in Washington County in northeastern Colorado (Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 420, p. 3, June 28, 1940).

Geomys bursarius lutescens Merriam†*

1890. *Geomys bursarius lutescens* Merriam, North Amer. Fauna No. 4, p. 51, Oct. 8, 1890.—Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 222, Nov. 29, 1947.

Type Locality.—Sand hills on Birdwood Creek, Lincoln County, western Nebraska. *Range.*—Arid plains and sand-hill regions of central and western Nebraska, north to Niobrara River, west into sand hills of Sheridan County, east approximately to long. 97° 30′ W. (see Swenk, Missouri Valley Fauna No. 2, pp 1–3, 6–7, Feb. 1, 1940); and south to northwestern Kansas, eastward certainly to Ellis County, southward certainly to Scott County (Villa and Hall, loc. cit.).

Geomys bursarius jugossicularis Hooper

1940. *Geomys lutescens jugossicularis* Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 420, p. 1, June 28, 1940.

1947. *Geomys bursarius jugossicularis* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 226, Nov. 29, 1947.

Type Locality.—Lamar, Arkansas River Valley, Prowers County. Colo. *Range.*—Southeastern Colorado; extreme southwestern Kansas, northward certainly to Hamilton County and south certainly to Morton and Seward Counties (Villa and Hall, loc. cit.); and possibly ranging into Panhandles of Oklahoma and Texas. Recorded also from Las Animas, Bent County, southeastern Colorado, and Texline, Dallam County, Tex. (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 364, Dec. 15, 1952).

Geomys bursarius industrius Villa and Hall

1947. *Geomys bursarius industrius* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 226, Nov. 29, 1947.

Type Locality.—One and one-half miles north of Fowler, Meade County, Kans. *Range.*—Southwestern Kansas from Meade County eastward to Pratt and Clark Counties; from Pawnee County southward probably to Oklahoma boundary.

Geomys bursarius major Davis*

1940. *Geomys lutescens major* Davis, Texas Agr. Exp. Station Bull. 590, p. 32, Oct. 23, 1940.

1947. *Geomys bursarius major* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 229, Nov. 29, 1947.

Type Locality.—Eight miles west of Clarendon, Donley County, Tex. *Range.*—Plains region of northwestern Texas, western Oklahoma, and eastern New Mexico; south-central Kansas, northward certainly to Ellsworth County, westward certainly to Stafford and Barber Counties and eastward to Cowley County (Villa and Hall, loc. cit.).

Geomys bursarius llanensis V. Bailey†*

1905. *Geomys breviceps llanensis* V. Bailey, North Amer. Fauna No. 25, p. 129, Oct. 24, 1905.

1940. *Geomys lutescens llanensis* Davis, Texas Agr. Exp. Station Bull. 590, p. 32, Oct. 23, 1940.

1947. *Geomys bursarius llanensis* Villa and Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 11, p. 234, Nov. 29, 1947.

Type Locality.—Llano, Llano County, Tex. *Range.*—Restricted to Central Basin of Texas.

Geomys bursarius texensis Merriam†*

1895. *Geomys texensis* Merriam, North Amer. Fauna No. 8, p. 137, Jan. 31, 1895.

1940. *Geomys breviceps texensis* Davis, Texas Agr. Exp. Station Bull. 590, p. 20, Oct. 23, 1940.

1950. *Geomys bursarius texensis* Baker, Journ. Mamm., vol. 31, No. 3, p. 349, Aug. 21, 1950.

Type Locality.—Mason, Mason County, Tex. *Range.*—Known from near type locality only.

Geomys bursarius dutcheri Davis†*

1940. *Geomys breviceps dutcheri* Davis, Texas Agr. Exp. Station Bull. 590, p. 12, Oct. 23, 1940.

1951. *Geomys bursarius dutcheri* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Fort Gibson, Muskogee County, Okla. *Range.*—Arkansas River Valley from Tulsa, Okla., east at least as far as Benton, Saline County, Ark., and south into northeastern Texas; and northwestern Louisiana, including area between flood plains of Red and Ouachita Rivers (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 241, Nov. 22, 1943); and north to southeastern Kansas, including Arkansas River Valley (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 75, September 1944).

Geomys bursarius breviceps Baird†*

1855. *Geomys breviceps* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 335, 1855.

1895. *Geomys breviceps* Merriam, North Amer. Fauna No. 8, p. 129, Jan. 31, 1895.

1951. *Geomys bursarius breviceps* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Prairie Mer Rouge, Morehouse Parish, La. *Range.*—Restricted to sandy "island" in immediate vicinity of Mer Rouge (Davis, Texas Agr. Exp. Station Bull. 590, p. 14, Oct. 23, 1940).

Geomys bursarius brazensis Davis

1938. *Geomys breviceps brazensis* Davis, Journ. Mamm., vol. 19, No. 4, p. 489, Nov. 14, 1938.

1951. *Geomys bursarius brazensis* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Five miles east of Kurten, Grimes County, Tex. *Range.*—Sandy, post oak country of Texas, from Sabine River in Kaufman and Panola Counties, south and west to Colorado River in Bastrop and Colorado Counties (Davis, Texas Agr. Exp. Station Bull. 590, p. 14, Oct. 23, 1940).

Geomys bursarius pratincolus Davis*

1940. *Geomys breviceps pratincolus* Davis, Texas Agr. Exp. Station Bull. 590, p. 18, Oct. 23, 1940.

1951. *Geomys bursarius pratincolus* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Two miles east of Liberty, Liberty County, Tex. *Range.*—Piney woods area of southeastern Texas east of Trinity River and north of coastal prairie, east as far as Red River in Louisiana.

Geomys bursarius attwateri Merriam†*

1895. *Geomys breviceps attwateri* Merriam, North Amer. Fauna No. 8, p. 135, Jan. 31, 1895.

1951. *Geomys bursarius attwateri* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Rockport, Aransas County, Tex. *Range.*—Coastal sands of Texas from Colorado River southwestward to Nueces River; inland south of Guadalupe River at least as far as Moore, Frio County (Davis, Texas Agr. Exp. Station Bull. 590, p. 15, Oct. 23, 1940).

Geomys bursarius ammophilus Davis†*

1940. *Geomys breviceps ammophilus* Davis, Texas Agr. Exp. Station Bull. 590, p. 16, Oct. 23, 1940.

1951. *Geomys bursarius ammophilus* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Cuero, De Witt County, Tex. *Range.*—Between Colorado and Guadalupe Rivers from blackland prairies in northwestern De Witt, Lavaca, and Colorado Counties southeastward to Lake Charles clays near gulf coast, in Texas.

Geomys bursarius sagittalis Merriam†*

1895. *Geomys breviceps sagittalis* Merriam, North Amer. Fauna No. 8, p. 134, Jan. 31, 1895.

1951. *Geomys bursarius sagittalis* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—Clear Creek, Galveston Bay, southern Harris County, Tex. *Range.*—Along Clear Creek and in sands along Galveston Bay north of Clear Creek, Texas (Davis, Texas Agr. Exp. Station Bull. 590, p. 18, Oct. 23, 1940).

Geomys bursarius terricolus Davis

1940. *Geomys breviceps terricolus* Davis, Texas Agr. Exp. Station Bull. 590, p. 17, Oct. 23, 1940.

1951. *Geomys bursarius terricolus* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 57, Apr. 13, 1951.

Type Locality.—One mile north of Texas City, Galveston County, Tex. *Range.*—Known from type locality only.

Geomys bursarius ludemani Davis

1940. *Geomys breviceps ludemani* Davis, Texas Agr. Exp. Station Bull. 590, p. 19, Oct. 23, 1940.

1951. *Geomys bursarius ludemani* Baker and Glass, Proc. Biol. Soc. Washington, vol. 64, p. 58, Apr. 13, 1951.

Type Locality.—Seven miles southwest of Fannett, Jefferson County, Tex. *Range.*—Apparently restricted to a few isolated sand ridges in southern parts of Jefferson and Chambers Counties in extreme southeastern Texas.

Geomys arenarius arenarius Merriam†*

1895. *Geomys arenarius* Merriam, North Amer. Fauna No. 8, p. 139, Jan. 31, 1895.

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Valley of upper Rio Grande, from below El Paso, Tex., and Juárez, Chihuahua, north to Las Cruces, N. Mex., and west to Deming, N. Mex.

Geomys arenarius brevirostris Hall

1932. *Geomys arenarius brevirostris* Hall, Proc. Biol. Soc. Washington, vol. 45, p. 97, June 21, 1932.

Type Locality.—East edge of white sand area on Tularosa–Hot Springs Road, 9 miles west of Tularosa, Otero County, N. Mex. *Range.*—Known from near Tularosa and Alamogordo, Otero County.

Geomys personatus personatus True†*

1889. *Geomys personatus* True, Proc. U. S. Nat. Mus., vol. 11 (1888), p. 159, Jan. 5, 1889.

Type Locality.—Padre Island, Cameron County, Tex. *Range.*—Restricted to Padre and Mustang Islands, Tex.

Geomys personatus fallax Merriam†*

1895. *Geomys personatus fallax* Merriam, North Amer. Fauna No. 8, p. 144, Jan. 31, 1895.

Type Locality.—South side of Nueces Bay, Nueces County, Tex. *Range.*—South side of Nueces Bay and along both sides of Nueces River from Corpus Christi and Edroy northwestward at least as far as Three Rivers, Live Oak County, Tex. (Davis, Texas Agr. Exp. Station Bull. 590, p. 28, Oct. 23, 1940).

Geomys personatus maritimus Davis*

1940. *Geomys personatus maritimus* Davis, Texas Agr. Exp. Station Bull. 590, p. 26, Oct. 23, 1940.

Type Locality.—Flour Bluff, 11 miles southeast of Corpus Christi, Nueces County, Tex. *Range.*—Beach sands from Flour Bluff south probably as far as Baffin Bay in Kleberg County, Tex.

Geomys personatus megapotamus Davis

1940. *Geomys personatus megapotamus* Davis, Texas Agr. Exp. Station Bull. 590, p. 27, Oct. 23, 1940.

Type Locality.—Four miles southeast of Oilton, Webb County, Tex. *Range.*—Sandy sections of lower Rio Grande plains in Webb, Duval, Brooks, Jim Hogg, Starr, Zapata, Kenedy, La Salle, and Willacy Counties, Tex.

Geomys personatus streckeri Davis

1940. *Geomys personatus minor* Davis, Texas Agr. Exp. Station Bull. 590, p. 29, Oct. 23, 1940. (Not *Geomys minor* Gidley, U. S. Geol. Surv. Prof. Pap. 131–E, p. 123, Dec. 26, 1922.)

1943. *Geomys personatus streckeri* Davis, Journ. Mamm., vol. 24, No. 4, p. 508, Nov. 20, 1943. (Substitute for *Geomys personatus minor* Davis.)

Type Locality.—Carrizo Springs, Dimmit County, Tex. *Range.*—Known from type locality only.

Geomys personatus fuscus Davis

1940. *Geomys personatus fuscus* Davis, Texas Agr. Exp. Station Bull. 590, p. 30, Oct. 23, 1940.

Type Locality.—Fort Clark [Brackettville], Kinney County, Tex. *Range.*—Along water courses tributary to Rio Grande in Val Verde and Kinney Counties, Tex.

Geomys personatus tropicalis Goldman†*

1915. *Geomys personatus tropicalis* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 134, June 29, 1915.

Type Locality.—Altamira, Tamaulipas, México. *Range.*—Known from type locality only.

Genus PAPPOGEOMYS[92] Merriam

1895. *Pappogeomys* Merriam, North Amer. Fauna No. 8, p. 145, Jan. 31, 1895. (Type, *Geomys bulleri* Thomas.)

Pappogeomys bulleri bulleri (Thomas)*

1892. *Geomys bulleri* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 10, p. 196, August 1892.

1895. *Pappogeomys bulleri* Merriam, North Amer. Fauna No. 8, p. 147, Jan. 31, 1895.

1939. *Pappogeomys bulleri bulleri* Goldman, Journ. Mamm., vol. 20, No. 1, p. 94, Feb. 14, 1939.

Type Locality.—West slope of Sierra de Mascota, northwestern Jalisco, México; probably between Talpa and Mascota. Altitude, between 4,500 and 5,000 feet. *Range.*—Mountain slopes, tableland and coastal region from southern Jalisco north to southern Nayarit, México.

Pappogeomys bulleri flammeus Goldman†*

1939. *Pappogeomys bulleri flammeus* Goldman, Journ. Mamm., vol. 20, No. 1, p. 95, Feb. 14, 1939.

Type Locality.—Milpillas, 5 miles southwest of San Sebastián, northwestern Jalisco, México. Altitude, 3,800 feet. *Range.*—Known from type locality only.

Pappogeomys bulleri lagunensis Goldman†*

1939. *Pappogeomys bulleri lagunensis* Goldman, Journ, Mamm., vol. 20, No. 1, p. 96, Feb. 14, 1939.

Type Locality.—La Laguna, Sierra de Juanacatlán, northwestern Jalisco, México. Altitude, 6,500 feet. *Range.*—Known from type locality only.

Pappogeomys bulleri amecensis Goldman†*

1939. *Pappogeomys bulleri amecensis* Goldman, Journ. Mamm., vol. 20, No. 1, p. 97, Feb. 14, 1939.

Type Locality.—Mountains near Ameca, northwestern Jalisco, México. Altitude, 6,500 feet. *Range.*—Known only from region of type locality in upper part of valley of Río de Ameca, Jalisco.

Pappogeomys bulleri albinasus Merriam†*

1895. *Pappogeomys albinasus* Merriam, North Amer. Fauna No. 8, p. 149, Jan. 31, 1895.

1939. *Pappogeomys bulleri albinasus* Goldman, Journ. Mamm., vol. 20, No. 1, p. 94, Feb. 14, 1939.

Type Locality.—Atemajac, a suburb of Guadalajara, Jalisco, México. *Range.*—Definitely known from type locality only; but burrows seen along the railroad a few miles west of Guadalajara were probably made by this animal.

Pappogeomys bulleri nelsoni (Merriam)†*

1892. *Geomys nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 164, Sept. 29, 1892.

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[92] Revised in Merriam, North Amer. Fauna No. 8, pp. 145–149, Jan. 31, 1895, and by Goldman, Journ. Mamm., vol. 20, No. 1, pp. 93–98, Feb. 14, 1939.

1939. *Pappogeomys bulleri nelsoni* Goldman, Journ. Mamm., vol. 20, No. 1, p. 94, Feb. 14, 1939.

Type Locality.—North slope of Sierra Nevada de Colima, near Zapotlán, southern Jalisco, México. Altitude, 6,500 feet. *Range.*—Known from type locality only.

Pappogeomys bulleri burti Goldman

1939. *Pappogeomys bulleri burti* Goldman, Journ. Mamm., vol. 20, No. 1, p. 97, Feb. 14, 1939.

Type Locality.—Tenacatita Bay, southwest coast of Jalisco, México. *Range.*—Known from type locality only.

Pappogeomys bulleri nayaritensis Goldman†*

1939. *Pappogeomys bulleri nayaritensis* Goldman, Journ. Mamm., vol. 20, No. 1, p. 94, Feb. 14, 1939.

Type Locality.—Jalisco, about 10 miles south of Tepic, southern Nayarit, México. Altitude, 5,000 feet. *Range.*—Known only from type locality, on mountain ridge between valleys of Compostela and Tepic, Nayarit.

Genus CRATOGEOMYS[93] Merriam

1895. *Cratogeomys* Merriam, North Amer. Fauna No. 8, p. 150, Jan. 31, 1895. (Type, *Geomys merriami* Thomas.)

1895. *Platygeomys* Merriam, North Amer. Fauna No. 8, p. 162, Jan. 31, 1895. (Type, *Geomys gymnurus* Merriam.)

castanops—group

Cratogeomys castanops castanops (Baird)†*

1852. *Pseudostoma castanops* Baird, *in* Stansbury, Exploration and survey of the valley of the Great Salt Lake of Utah, . . . (Spec. Sess., U. S. Senate, Exec. No. 3), App. C., p. 313, June 1852.

1884. *Geomys castanops* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.

1895. *Cratogeomys castanops* Merriam, North Amer. Fauna No. 8, p. 159, Jan. 31, 1895.

Type Locality.—"Prairie road to Bent's Fort," on the Arkansas River, near present town of Las Animas, Bent County, Colo. *Range.*—Great Plains region in Arkansas River Valley, Colo., and south into northeastern New Mexico (Chico Springs). Recorded also from Meade County, Kans. (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 75, September 1944).

Cratogeomys castanops lacrimalis Nelson and Goldman†*

1934. *Cratogeomys castanops lacrimalis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 137, June 13, 1934.

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[93] *Cratogeomys* revised by Merriam, North Amer. Fauna No. 8, pp. 150–162, Jan. 31, 1895, and by Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, pp. 135–154, June 13, 1934. *Platygeomys* revised by Merriam, North Amer. Fauna No. 8, pp. 150–162, Jan. 31, 1895, and by Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, pp. 135–154, June 13, 1934. *Cratogeomys* and *Platygeomys* regarded as congeneric by Hooper, Journ. Mamm., vol. 27, No. 4, pp. 397–399, Nov. 25, 1946; and Journ. Mamm., vol. 29, No. 3, pp. 301–303, Sept. 1, 1948.

Type Locality.—Roswell, Chaves County, N. Mex. Altitude, 3,500 feet. *Range.*—Pecos River Valley in southeastern New Mexico, and Pecos and northern side of Rio Grande Valley in western Texas.

Cratogeomys castanops hirtus Nelson and Goldman†*

1934. *Cratogeomys castanops hirtus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 138, June 13, 1934.

Type Locality.—Albuquerque, Bernalillo County, N. Mex. Altitude, 5,000 feet. *Range.*—Upper part of Rio Grande Valley, north-central New Mexico.

Cratageomys castanops perplanus Nelson and Goldman†*

1934. *Cratogeomys castanops perplanus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 136, June 13, 1934.

Type Locality.—Tascosa, Oldham County, Tex. Altitude, 3,000 feet. *Range.*—Plains region from Canadian River Valley, northwestern Texas and northeastern New Mexico, south to upper Colorado River Valley, in central western part of Texas.

Cratogeomys castanops angusticeps Nelson and Goldman†*

1934. *Cratogeomys castanops angusticeps* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 139, June 13, 1934.

Type Locality.—Eagle Pass, Maverick County, Tex. Altitude, 3,000 feet. *Range.*—Northern side of Río Grande Valley, from near mouth of Pecos River south at least to Eagle Pass.

Cratogeomys castanops clarkii (Baird)†*

1855. *Geomys clarkii* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, p. 332, April 1855.

1934. *Cratogeomys castanops clarkii* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 140, June 13, 1934.

Type Locality.—Presidio del Norte, on Río Grande, at or near present town of Ojinaga, Chihuahua, México. *Range.*—Mexican side of Big Bend section of Río Grande Valley in northeastern Chihuahua and northern Coahuila, México.

Cratogeomys castanops consitus Nelson and Goldman†*

1934. *Cratogeomys castanops consitus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 140, June 13, 1934.

Type Locality.—Gallego, Chihuahua, México. Altitude, 5,500 feet. *Range.*—Elevated plains of Chihuahua east of Sierra Madre.

Cratogeomys castanops tamaulipensis Nelson and Goldman†*

1934. *Cratogeomys castanops tamaulipensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 141, June 13, 1934.

Type Locality.—Matamoros, Tamaulipas, México. *Range.*—Plains of northern Tamaulipas, northern Nuevo León, and east-central Coahuila, México.

Cratogeomys castanops planifrons Nelson and Goldman†*

1934. *Cratogeomys castanops planifrons* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 146, June 13, 1934.

Type Locality.—Miquihuana, southern Tamaulipas, México. Altitude, 5,000 feet. *Range.*—Elevated plains of southern Tamaulipas.

Cratogeomys castanops convexus Nelson and Goldman†*

1934. *Cratogeomys castanops convexus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 142, June 13, 1934.

Type Locality.—Seven miles east of Las Vacas, Río Grande Valley, Coahuila, México (opposite Del Rio, Val Verde County, Tex.). *Range.*—Southern side of Río Grande Valley, in vicinity of type locality, northeastern Coahuila.

Cratogeomys castanops excelsus Nelson and Goldman†*

1934. *Cratogeomys castanops excelsus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 143, June 13, 1934.

Type Locality.—San Pedro, 10 miles west of Laguna de Mayrán, Coahuila, México. *Range.*—Arid interior basin in southwestern Coahuila and northeastern Durango, México.

Cratogeomys castanops subsimus Nelson and Goldman†*

1934. *Cratogeomys castanops subsimus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 144, June 13, 1934.

Type Locality.—Jaral, southeastern Coahuila, México. *Range.*—Known only from type locality, in upper part of Río Salinas Valley, México.

Cratogeomys castanops goldmani Merriam†*

1895. *Cratogeomys castanops goldmani* Merriam, North Amer. Fauna No. 8, p. 160, Jan. 31, 1895.

Type Locality.—Cañitas, Zacatecas, México. *Range.*—Known only from type locality on elevated plains of northern Zacatecas.

Cratogeomys castanops rubellus Nelson and Goldman*

1934. *Cratogeomys castanops rubellus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 147, June 13, 1934.

Type Locality.—Soledad, near San Luis Potosí, San Luis Potosí, México. *Range.*—Elevated plains region of southwestern San Luis Potosí.

Cratogeomys castanops peridoneus Nelson and Goldman†*

1934. *Cratogeomys castanops peridoneus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 148, June 13, 1934.

Type Locality.—Río Verde, San Luis Potosí, México. Altitude, 3,000 feet. *Range.*—Arid plains in valley of Río Verde, forming an eastern terrace of tableland region in central southern San Luis Potosí.

Cratogeomys castanops subnubilus Nelson and Goldman†*

1934. *Cratogeomys castanops subnubilus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 145, June 13, 1934.

Type Locality.—Carneros, Coahuila, México. Altitude, 6,800 feet. *Range.*—Elevated plains and high mountains of southeastern Coahuila.

Cratogeomys merriami merriami (Thomas)*

1893. *Geomys merriami* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 12, p. 271, October 1893.

1895. *Cratogeomys merriami* Merriam, North Amer. Fauna No. 8, p. 152, Jan. 31, 1895.

1934. *Cratogeomys merriami merriami* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 149, June 13, 1934.

Type Locality.—"Southern México," probably in the Valley of México. *Range.*—Valley of México (7,600 feet), Valley of Toluca and adjacent mountain slopes up to 11,000 feet in altitude.

Cratogeomys merriami oreocetes Merriam†*

1895. *Cratogeomys oreocetes* Merriam, North Amer. Fauna No. 8, p. 156, Jan. 31, 1895. (Regarded as identical with *merriami* by Davis, Journ. Mamm., vol. 25, No. 4, p. 386, Dec. 12, 1944.)

1934. *Cratogeomys merriami oreocetes* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 149, June 13, 1934.

Type Locality.—Volcán de Popocatépetl, México, México. Altitude, 11,500 feet. *Range.*—High slopes of Volcán de Popocatépetl, above range of *merriami.*

Cratogeomys merriami peregrinus Merriam†*

1895. *Cratogeomys peregrinus* Merriam, North Amer. Fauna No. 8, p. 158, Jan. 31, 1895. (Regarded as presumably identical with *merriami* by Davis, Journ. Mamm., vol. 25, No. 4, p. 386, Dec. 12, 1944.)

1934. *Cratogeomys merriami peregrinus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 149, June 13, 1934.

Type Locality.—Volcán de Ixtaccíhuatl, México, México. Altitude, 11,500 feet. *Range.*—High slopes of Volcán de Ixtaccíhuatl, above range of *merriami.*

Cratogeomys merriami saccharalis Nelson and Goldman†*

1934. *Cratogeomys merriami saccharalis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 149, June 13, 1934.

Type Locality.—Atlixco, Puebla, México. Altitude, 5,400 feet. *Range.*—Valleys drained by upper affluents of Río Balsas, in southwestern Puebla.

Cratogeomys merriami irolonis Nelson and Goldman†*

1934. *Cratogeomys merriami irolonis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 150, June 13, 1934. (Regarded as a species by Davis, Journ. Mamm., vol. 25, No. 4, p. 387, Dec. 12, 1944.)

Type Locality.—Irolo, Hidalgo, México. Altitude, 7,600 feet. *Range.*—Elevated plain of Apam, southern Hidalgo; probably extending eastward over plains of Tlaxcala and Puebla, México.

Cratogeomys perotensis perotensis Merriam†*

1895. *Cratogeomys perotensis* Merriam, North Amer. Fauna No. 8, p. 154, Jan. 31, 1895.

1934. *Cratogeomys perotensis perotensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 151, June 13, 1934.

Type Locality.—Cofre de Perote, Veracruz, México. Altitude, 9,500 feet. *Range.*—High slopes of Cofre de Perote, western Veracruz.

Cratogeomys perotensis estor Merriam†*

1895. *Cratogeomys estor* Merriam, North Amer. Fauna No. 8, p. 155, Jan. 31, 1895.

1934. *Cratogeomys perotensis estor* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 151, June 13, 1934.

Type Locality.—Las Vigas, Veracruz, México. Altitude, 8,000 feet. *Range.*—Known only from type locality at extreme eastern border of high plateau region, east of Cofre de Perote in western Veracruz.

Cratogeomys perotensis peraltus Goldman

1937. *Cratogeomys perotensis peraltus* Goldman, Journ. Washington Acad. Sci., vol. 27, No. 9, p. 403, Sept. 15, 1937.

Type Locality.—Near timber line on Mount Orizaba, Veracruz, México. Altitude, 12,500 feet. *Range.*—Known from type locality only.

Cratogeomys fulvescens fulvescens Merriam†*

1895. *Cratogeomys fulvescens* Merriam, North Amer. Fauna No. 8, p. 161, Jan. 31, 1895.

Type Locality.—Chalchicomula, Puebla, México. Altitude, 8,200 feet. *Range.*—Open, elevated plains near western base of Mount Orizaba, eastern Puebla.

Cratogeomys fulvescens subluteus Nelson and Goldman†*

1934. *Cratogeomys fulvescens subluteus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 47, p. 152, June 13, 1934.

Type Locality.—Perote, Veracruz, México. Altitude, 7,800 feet. *Range.*—Open, elevated plains near western base of Cofre de Perote, western Veracruz.

gymnurus—group

Cratogeomys gymnurus gymnurus (Merriam)†*

1892. *Geomys gymnurus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 166, Sept. 29, 1892.

1895. *Platygeomys gymnurus* Merriam, North Amer. Fauna No. 8, p. 164, Jan. 31, 1895.

1947. *Cratogeomys gymnurus* Hooper, Journ. Mamm., vol. 28, No. 1, p. 46, Feb. 17, 1947.

1948. *Cratogeomys gymnurus gymnurus* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 302, Sept. 1, 1948.

Type Locality.—Zapotlán, southern Jalisco, México. Altitude, 4,000 feet. *Range.*—Known from type locality only.

Cratogeomys gymnurus inclarus (Goldman)†*

1939. *Platygeomys gymnurus inclarus* Goldman, Journ. Mamm., vol. 20, No. 1, p. 88, Feb. 15, 1939.

1948. *Cratogeomys gymnurus inclarus* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 302, Sept. 1, 1948.

Type Locality.—North slope of El Nevado de Colima, Jalisco, México. Altitude, 10,000 feet. *Range.*—Known only from El Nevado de Colima, southern Jalisco. Vertical range, 5,000 to 10,000 feet.

Cratogeomys gymnurus imparilis (Goldman)†*

1939. *Platygeomys gymnurus imparilis* Goldman, Journ. Mamm., vol. 20, No. 1, p. 89, Feb. 15, 1939.

1948. *Cratogeomys gymnurus imparilis* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 302, Sept. 1, 1948.

Type Locality.—Pátzcuaro, Michoacán, México. Altitude, 7,000 feet. *Range.*—Known only from type locality on lower slope of mountains near southern shore of Lake Pátzcuaro, Michoacán.

Cratogeomys fumosus (Merriam)†*

1892. *Geomys fumosus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 165, Sept. 29, 1892.

1895. *Platygeomys fumosus* Merriam, North Amer. Fauna No. 8, p. 170, Jan. 31, 1895.

1948. *Cratogeomys fumosus* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 302, Sept. 1, 1948.

Type Locality.—Three miles west of city of Colima, Colima, México. Altitude, 1,700 feet. *Range.*—Plains of Colima. Vertical range, 1,500 to 2,000 feet.

Cratogeomys angustirostris (Merriam)†*

1903. *Platygeomys tylorhinus angustirostris* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 81, May 29, 1903.

1939. *Platygeomys angustirostris* Goldman, Journ. Mamm., vol. 20, No. 1, p. 90, Feb. 15, 1939.

1948. *Cratogeomys angustirostris* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 303, Sept. 1, 1948.

Type Locality.—Mount Patambán, Michoacán, México. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Cratogeomys varius (Goldman)†*

1939. *Platygeomys varius* Goldman, Journ. Mamm., vol. 20, No. 1, p. 90, Feb. 15, 1939.

1947. *Cratogeomys varius* Hooper, Journ. Mamm., vol. 28, No. 1, p. 45, Feb. 17, 1947.

1948. *Cratogeomys varius* Hooper, Journ. Mamm., vol. 28, No. 3 (August), p. 303, Sept. 1, 1948.

Type Locality.—Uruapan, Michoacán, México. Altitude, about 6,000 feet. *Range.*—Known from type locality only.

Cratogeomys tylorhinus tylorhinus (Merriam)†*

1895. *Platygeomys tylorhinus* Merriam, North Amer. Fauna No. 8, p. 167, Jan. 31, 1895.

1947. *C[ratogeomys] t[ylorhinus] tylorhinus* Hooper, Journ. Mamm., vol. 28, No. 1, p. 46, Feb. 17, 1947.

Type Locality.—Tula, Hidalgo, México. Altitude, 6,800 feet. *Range.*—Known only from type locality and from Marques (8,000 feet) in mountains of southwestern Hidalgo.

Cratogeomys tylorhinus arvalis Hooper

1947. *Cratogeomys tylorhinus arvalis* Hooper, Journ. Mamm., vol. 28, No. 1, p. 45, Feb. 17, 1947.

Type Locality.—Colonia del Valle, México, Distrito Federal, México. Altitude, 2,275 meters. *Range.*—Known from vicinity of México, Distrito Federal, only.

Cratogeomys tylorhinus planiceps (Merriam)†*

1895. *Platygeomys planiceps* Merriam, North Amer. Fauna No. 8, p. 168, Jan. 31, 1895.

1947. *C[ratogeomys] t[ylorhinus] planiceps* Hooper, Journ. Mamm., vol. 28, No. 1, p. 46, Feb. 17, 1947.

Type Locality.—North slope of Volcán de Toluca, México, México. Altitude, 9,000 feet. *Range.*—Known only from Volcán de Toluca.

Cratogeomys zinseri (Goldman)†*

1939. *Platygeomys zinseri* Goldman, Journ. Mamm., vol. 20, No. 1, p. 91, Feb. 15, 1939.

1948. *Cratogeomys zinseri* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 303, Sept. 1, 1948.

Type Locality.—Lagos, Jalisco, México. Altitude, 6,150 feet. *Range.*—Elevated plain in vicinity of type locality, and east to San Diego de la Union, northern Guanajuato, México.

Cratogeomys neglectus (Merriam)†*

1902. *Platygeomys neglectus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 68, Mar. 22, 1902.

1948. *Cratogeomys neglectus* Hooper, Journ. Mamm., vol. 29, No. 3 (August), p. 303, Sept. 1, 1948.

Type Locality.—Cerro de la Calentura, about 8 miles northwest of Pinal de Amoles, Querétaro, México. Altitude, 9,000 feet. *Range.*—Known only from upper slopes of Cerro de la Calentura.

Genus ORTHOGEOMYS[94] Merriam

1895. *Orthogeomys* Merriam, North Amer. Fauna No. 8, p. 172, Jan. 31, 1895. (Type, *Geomys scalops* Thomas.)

Orthogeomys grandis grandis (Thomas)*

1893. *Geomys grandis* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 12, p. 270, October 1893.

1895. *Orthogeomys grandis* Merriam, North Amer. Fauna No. 8, p. 175, Jan. 31, 1895.

1930. *Orthogeomys grandis grandis* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 156, May 9, 1930.

Type Locality.—Dueñas, Sacatepequez, Guatemala. *Range.*—Highlands of Guatemala. Recorded also from Volcán San Lucas and Finca Cipres (2,000 feet) on Pacific slope of Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 28, Dec. 12, 1934).

Orthogeomys grandis latifrons Merriam†*

1895. *Orthogeomys latifrons* Merriam, North Amer. Fauna No. 8, p. 178, Jan. 31, 1895.

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[94] Revised by Merriam, North Amer. Fauna No. 8, pp. 172–179, Jan. 31, 1895; and by Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, pp. 155–159, May 9, 1930.

1930. *Orthogeomys grandis latifrons* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 156, May 9, 1930.

Type Locality.—Guatemala; exact locality unknown (perhaps in lowlands near Pacific coast). *Range.*—Known from type locality only.

Orthogeomys grandis vulcani Nelson and Goldman†*

1931. *Orthogeomys grandis vulcani* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 105, Oct. 17, 1931.

Type Locality.—Volcán Santa María, Quezaltenango, Guatemala. Altitude, 9,000 feet. *Range.*—Known from type locality only.

Orthogeomys grandis pluto Lawrence

1933. *Orthogeomys grandis pluto* Lawrence, Proc. New England Zool. Club, vol. 13, p. 66, May 8, 1933.

Type Locality.—Cerro Cantoral, north of Tegucigalpa, Francisco Morazán, Honduras. *Range.*—Known from type locality only.

Orthogeomys grandis annexus Nelson and Goldman†*

1933. *Orthogeomys grandis annexus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 195, Oct. 26, 1933.

Type Locality.—Tuxtla Gutiérrez, Chiapas, México. Altitude, 2,600 feet. *Range.*—Arid tropical valley of Chiapas River in interior of Chiapas; limits of range unknown.

Orthogeomys grandis huixtlae Villa

1944. *Orthogeomys grandis huixtlae* Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 15, No. 1, p. 319, pl. 1 (received Oct. 28, 1944).

Type Locality.—Finca "Lubeca," 12 kilometers northeast of Huixtla, Chiapas, México. Altitude, 850 meters. *Range.*—Known from type locality only.

Orthogeomys grandis soconuscensis Villa

1949. *Orthogeomys grandis soconuscensis* Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 19 (1948), No. 1, p. 267, Apr. 8, 1949.

Type Locality.—Finca Esperanza, 45 kilometers by road northwest of Huixtla, Chiapas, México. Altitude, 710 meters. *Range.*—Sierra Madre de Chiapas, from 710 to at least 1210 meters, on both the Pacific and Atlantic slopes.

Orthogeomys grandis scalops (Thomas)*

1894. *Geomys scalops* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 13, p. 437, May 1894.

1930. *Orthogeomys grandis scalops* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 156, May 9, 1930.

Type Locality.—Tehuantepec, Oaxaca, México. *Range.*—Extreme southern México, in State of Oaxaca and probably adjacent parts of Chiapas.

Orthogeomys grandis nelsoni Merriam†*

1895. *Orthogeomys nelsoni* Merriam, North Amer. Fauna No. 8, p. 176, Jan. 31, 1895.

1930. *Orthogeomys grandis nelsoni* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 156, May 9, 1930.

Type Locality.—Mount Zempoaltepec, Oaxaca, México. Altitude, 8,000 feet. *Range.*—Mount Zempoaltepec, and adjacent region, including Comaltepec and Totontepec.

Orthogeomys grandis felipensis Nelson and Goldman†*

1930. *Orthogeomys grandis felipensis* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 157, May 9, 1930.

Type Locality.—Cerro San Felipe, 10 miles north of Oaxaca, México. Altitude, 10,000 feet. *Range.*—Known only from oak- and pine-forested upper slopes of high mountains rising from plateau in central Oaxaca.

Orthogeomys grandis alleni Nelson and Goldman†*

1930. *Orthogeomys grandis alleni* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 156, May 9, 1930.

Type Locality.—Near Acapulco, Guerrero, México. Altitude, 2,000 feet. *Range.*—Arid Tropical Zone lowlands and adjacent mountain slopes along Pacific coast from central southern Guerrero to central southern Oaxaca, México.

Orthogeomys grandis guerrerensis Nelson and Goldman†*

1930. *Orthogeomys grandis guerrerensis* Nelson and Goldman, Journ. Mamm., vol. 11, No. 2, p. 158, May 9, 1930.

Type Locality.—El Limón, in valley of Río de las Balsas, about 20 miles northwest of La Union, Guerrero, México. *Range.*—Arid Tropical Zone Valley of Río de las Balsas, at low elevations in Guerrero, and probably adjoining parts of southern Michoacán, México.

Orthogeomys cuniculus Elliot

1905. *Orthogeomys cuniculus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 234, Dec. 9, 1905.

Type Locality.—Yautepec [=Zanatepec], about 65 miles east of Tehuantepec, Oaxaca, México (see Elliot, Field Columb. Mus. Publ. 115, Zool. Ser., vol. 8, p. 312, Mar. 4, 1907). *Range.*—Known only from type locality (see Nelson and Goldman, Journ. Mamm., vol. 11, No. 3, p. 317, Aug. 9, 1930).

Orthogeomys pygacanthus Dickey

1928. *Orthogeomys pygacanthus* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 9, Feb. 1, 1928.

Type Locality.—Mount Cacaguatique, San Miguel, El Salvador. Altitude, 3,500 feet. *Range.*—Banana groves at type locality.

Genus HETEROGEOMYS[96] Merriam

1895. *Heterogeomys* Merriam, North Amer. Fauna No. 8, p. 179, Jan. 31, 1895. (Type, *Geomys hispidus* Le Conte.)

Heterogeomys hispidus hispidus (Le Conte)*

1852. *G[eomys] hispidus* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 158.

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[96] Revised by Merriam, North Amer. Fauna No. 8, pp. 179–185, Jan. 31, 1895, and by Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, pp. 147–152, Mar 30, 1929.

1884. *Geomys hispidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.

1895. *Heterogeomys hispidus* Merriam, North Amer. Fauna No. 8, p. 181, Jan. 31, 1895.

1929. *Heterogeomys hispidus hispidus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 147, Mar. 30, 1929.

Type Locality.—Near Jalapa, Veracruz, México. *Range.*—The "Tierra Templada," or middle belt along basal slope of tableland, in Veracruz, between altitudes of 4,000 and 4,500 feet.

Heterogeomys hispidus torridus (Merriam)†*

1895. *Heterogeomys torridus* Merriam, North Amer. Fauna No. 8, p. 183, Jan. 31, 1895. (Status as subspecies of *hispidus* questioned by Davis, Journ. Mamm., vol. 25, No. 4, p. 388, Dec. 12, 1944.)

1929. *Heterogeomys hispidus torridus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 147, Mar. 30, 1929.

Type Locality.—Chichicaxtle, Veracruz, México. *Range.*—Lowlands of Veracruz, from Chichicaxtle and Motzorongo to Catemaco.

Heterogeomys hispidus isthmicus Nelson and Goldman†*

1929. *Heterogeomys hispidus isthmicus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 149, Mar. 30, 1929.

Type Locality.—Jaltipan, Veracruz, México. Altitude, 100 feet. *Range.*—Semiforested coastal plains on Gulf side of Isthmus of Tehuantepec, in southern Veracruz.

Heterogeomys hispidus concavus Nelson and Goldman†*

1929. *Heterogeomys hispidus concavus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 148, Mar. 30, 1929.

Type Locality.—Pinal de Amoles, Querétaro, México. Altitude, 5,500 feet. *Range.*—Eastern slope of tableland and mountains to 7,000 feet in Querétaro, and lower elevations in San Luis Potosí, México.

Heterogeomys hispidus tehuantepecus Goldman†*

1939. *Heterogeomys hispidus tehuantepecus* Goldman, Journ. Washington Acad. Sci., vol. 29, No. 4, p. 175, Apr. 15, 1939.

Type Locality.—Mountains 12 miles northwest of Santo Domingo and about 60 miles north of city of Tehuantepec, Oaxaca, México. Altitude, 1,600 feet. *Range.*—Known only from type locality in mountains near top of continental divide on southern side of Isthmus of Tehuantepec, México.

Heterogeomys hispidus chiapensis Nelson and Goldman†*

1929. *Heterogeomys hispidus chiapensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 151, Mar. 30, 1929.

Type Locality.—Tenejapa, about 16 miles northeast of San Cristóbal, Chiapas, México. Altitude, 7,800 feet. *Range.*—Highlands of Chiapas and Guatemala from about 3,000 to 8,000 feet altitude, and descending to lower elevations in southern Tabasco, México.

Heterogeomys hispidus teapensis Goldman†*

1939. *Heterogeomys hispidus teapensis* Goldman, Journ. Washington Acad. Sci., vol. 29, No. 4, p. 176, Apr. 15, 1939.

Type Locality.—Teapa, Tabasco, México. *Range.*—Lowlands and mountain slopes in southern Tabasco.

Heterogeomys hispidus yucatanensis Nelson and Goldman†*

1929. *Heterogeomys hispidus yucatanensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 150, Mar. 30, 1929.

Type Locality.—Campeche, Campeche, México. Altitude, 50 feet. *Range.*—Lowlands of Yucatán Peninsula and northern Guatemala.

Heterogeomys hispidus cayoensis Burt

1937. *Heterogeomys hispidus cayoensis* Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 365, p. 1, Dec. 16, 1937.

Type Locality.—Mountain Pine Ridge, 12 miles south of El Cayo, Cayo, British Honduras. *Range.*—Known only from Mountain Pine Ridge and El Cayo.

Heterogeomys lanius Elliot

1905. *Heterogeomys lanius* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 235, Dec. 9, 1905.

Type Locality.—Xuchil, southeastern side of Mount Orizaba, Veracruz, México. *Range.*—Known from type locality only.

Genus MACROGEOMYS[96] Merriam

1895. *Macrogeomys* Merriam, North Amer. Fauna No. 8, p. 185, Jan. 31, 1895. (Type, *Geomys heterodus* Peters.)

Macrogeomys heterodus heterodus (Peters)*

1865. *Geomys heterodus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 177, 1865.

1895. *Macrogeomys heterodus* Merriam, North Amer. Fauna No. 8, p. 186, Jan. 31, 1895.

1946. *Macrogeomys heterodus heterodus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 376, Dec. 31, 1946.

Type Locality.—Escazú Heights, San José, Costa Rica. Altitude, 4,000 feet. (Restricted by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 376, Dec. 31, 1946.) *Range.*—Western slope of highlands in central Costa Rica, and headwaters of Río Grande de Tárcoles.

Macrogeomys heterodus cartagoensis Goodwin*

1943. *Macrogeomys heterodus cartagoensis* Goodwin, Amer. Mus. Nov., No. 1227, p. 2, Apr. 22, 1943.

Type Locality.—Paso Ancho, between Cartago and Pacayas, Cartago, Costa Rica. Altitude, about 4,800 feet. *Range.*—Upper Reventazón water shed and southern slopes of Volcán Irazú, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 377, Dec. 31, 1946).

Macrogeomys heterodus dolichocephalus Merriam†*

1895. *Macrogeomys dolichocephalus* Merriam, North Amer. Fauna No. 8, p. 189, Jan. 31, 1895.

1946. *Macrogeomys heterodus dolichocephalus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 377, Dec. 31, 1946.

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[96] **Revised by Merriam, North Amer. Fauna No. 8, pp. 185–195, Jan. 31, 1895.**

Type Locality.—San José, Costa Rica (probably Zarcéro or Palmira according to Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 377, Dec. 31, 1946). *Range.*—Uplands of north-central Costa Rica on Río San Carlos drainage; limits of range undetermined.

Macrogeomys cavator cavator Bangs*

1902. *Macrogeomys cavator* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 42, April 1902.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 4,800 feet. *Range.*—In mountains of Chiriquí, Panamá, and probably adjacent parts of Costa Rica. Vertical range, 4,000 to 7,000 feet.

Macrogeomys cavator pansa Bangs*

1902. *Macrogeomys pansa* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 44, April 1902.

1946. *Macrogeomys cavator pansa* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 379, Dec. 31, 1946.

Type Locality.—Bogavo [Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 600 feet. *Range.*—Northwestern Panamá and southwestern Costa Rica; limits of range unknown.

Macrogeomys cavator nigrescens Goodwin

1943. *Macrogeomys cavator nigrescens* Goodwin, Amer. Mus. Nov., No. 1227, p. 2, Apr. 22, 1943.

Type Locality.—El Muñeco (Río Navarro), 10 miles south of Cartago, Cartago, Costa Rica. Altitude, 4,000 feet. *Range.*—Known from Caribbean rain forest at type locality only.

Macrogeomys dariensis Goldman†*

1912. *Macrogeomys dariensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 8, Sept. 20, 1912.

Type Locality.—Cana [Santa Cruz de Cana], upper Río Tuyra, Darién, mountains of eastern Panamá. Altitude, 2,000 feet. *Range.*—Recorded also from Boca de Cupe, Tacarcuna, and Tapalisa, Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 110, Apr. 26, 1920).

Macrogeomys underwoodi Osgood*

1931. *Macrogeomys underwoodi* Osgood, Field Mus. Nat. Hist. Publ. 295, Zool. Ser., vol. 18, p. 143, Aug. 3, 1931.

Type Locality.—Alto de Jabillo Pirris, between San Gerónimo and Pozo Azul, San José, western Costa Rica. *Range.*—Known only from Alto de Jabillo Pirris and San Gerónimo Pirris, Costa Rica.

Macrogeomys cherriei cherriei (J. A. Allen)

1893. *Geomys cherriei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 337, Dec. 16, 1893.

1895. *Macrogeomys cherriei* Merriam, North Amer. Fauna No. 8, p. 194, Jan. 31, 1895.

1946. *Macrogeomys cherriei cherriei* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 380, Dec. 31, 1946.

Type Locality.—Santa Clara, Limón, Costa Rica. *Range.*—Northern foothills of Volcán Irazú, Costa Rica.

Macrogeomys cherriei costaricensis Merriam†*

1895. *Macrogeomys costaricensis* Merriam, North Amer. Fauna No. 8, p. 192, Jan. 31, 1895.

1946. *Macrogeomys cherriei costaricensis* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 380, Dec. 31, 1946.

Type Locality.—Pacuare, Limón, Costa Rica. *Range.*—Lower Río Reventazón and Río Pacuare Valleys, eastern Costa Rica; limits of range unknown.

Macrogeomys cherriei carlosensis Goodwin

1943. *Macrogeomys cherriei carlosensis* Goodwin, Amer. Mus. Nov., No. 1227, p. 3, Apr. 22, 1943.

Type Locality.—Cataratos San Carlos, Alajuela, Costa Rica, a small town on the Río San Carlos. Altitude, about 400 feet. *Range.*—Río San Carlos Valley; limits of range unknown.

Macrogeomys matagalpae J. A. Allen

1910. *Macrogeomys matagalpae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 97, Apr. 30, 1910.

Type Locality.—Peña Blanca, Rivas, Nicaragua. *Range.*—Highlands of north-central Nicaragua and probably south-central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 157, May 29, 1942).

Genus ZYGOGEOMYS[97] Merriam

1895. *Zygogeomys* Merriam, North Amer. Fauna No. 8, p. 195, Jan. 31, 1895. (Type, *Zygogeomys trichopus* Merriam.)

Zygogeomys trichopus trichopus Merriam†*

1895. *Zygogeomys trichopus* Merriam, North Amer. Fauna No. 8, p. 196, Jan. 31, 1895.

1938. *Zygogeomys trichopus trichopus* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 211, Dec. 23, 1938.

Type Locality.—Nahuatzen, Michoacán, México. Altitude, 8,000 to 8,500 feet. *Range.*—Sierra Madre of Michoacán; vertical range, up to 11,500 feet (Mount Tancítaro) and 11,800 feet (Mount Patambán).

Zygogeomys trichopus tarascensis Goldman†*

1938. *Zygogeomys trichopus tarascensis* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 211, Dec. 23, 1938.

Type Locality.—Mountains 6 miles southeast of Pátzcuaro, Michoacán, México. Altitude, 8,000 feet. *Range.*—Known only from upper slopes of mountains in vicinity of type locality.

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[97] Revised by Merriam, North Amer. Fauna No. 8, pp. 195–198, Jan. 31, 1895.

Family HETEROMYIDAE

Subfamily PEROGNATHINAE

Genus PEROGNATHUS [98] Wied-Neuwied

1839. *Perognathus* Wied-Neuwied, Nova Acta Phys.-Med. Acad. Caesar. Leop.-Carol., vol. 19, pt. 1, p. 368. (Type, *Perognathus fasciatus* Wied-Neuwied.)

Subgenus PEROGNATHUS Wied-Neuwied

fasciatus—group

Perognathus fasciatus fasciatus Wied-Neuwied*

1839. *Perognathus fasciatus* Wied-Neuwied, Nova Acta Phys.-Med. Acad. Caesar. Leop-Carol., vol. 19, pt. 1, p. 369.

1884. *Perognathus fasciatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884 (Part.)

Type Locality.—Old Fort Union [near Buford, N. Dak.] on upper Missouri River near its junction with Yellowstone River, Williams County, N. Dak. (see V. Bailey, Journ. Mamm., vol. 14, No. 3, p. 241, Aug. 17, 1933). *Range.*—Upper Sonoran and Transition Zones of northeastern Wyoming and northwestern South Dakota, western North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 119, Jan. 8, 1927) east at least to near Jamestown, Stutsman County (Blair, Journ. Mamm., vol. 21, No. 4, p. 461, Nov. 14, 1940), and eastern Montana; northward into southwestern Manitoba (Aweme, Oak Lake, Treesbank, and junction of Antler and Souris Rivers); probably also in parts of southeastern Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 130, Jan. 24, 1947; see also Soper, Journ. Mamm., vol. 27, No. 2, p. 144, May 14, 1946).

Perognathus fasciatus litus Cary†*

1911. *Perognathus fasciatus litus* Cary, Proc. Biol. Soc. Washington, vol. 24, p. 61, Mar. 22, 1911.

Type Locality.—Sun, Sweetwater Valley, Fremont County, central Wyoming. *Range.*—Sweetwater Valley.

Perognathus fasciatus infraluteus Thomas*

1893. *Perognathus infraluteus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 406, May 1893.

1900. *Perognathus fasciatus infraluteus* Osgood, North Amer. Fauna No. 18, p. 19, Sept. 20, 1900.

Type Locality.—Loveland, Larimer County, central northern Colorado. *Range.*—Known from type locality only.

Perognathus flavescens flavescens Merriam†*

1889. *Perognathus fasciatus flavescens* Merriam, North Amer. Fauna No. 1, p. 11, Oct. 25, 1889.

1900. *Perognathus flavescens* Osgood, North Amer. Fauna No. 18, p. 20, Sept. 20, 1900.

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[98] Revised by Merriam, North Amer. Fauna No. 1, Oct. 25, 1889; and by Osgood, North Amer. Fauna No. 18, Sept. 20, 1900.

Type Locality.—Kennedy, Cherry County, Nebr. *Range.*—Upper Austral plains west of Missouri River in South Dakota, Nebraska (Swenk, Missouri Valley Fauna, No. 3, pp. 1–4, June 5, 1940), western Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, No. 1, p. 75, September 1944), and plains region east of mountains in Colorado (Warren, The mammals of Colorado, . . . , p. 176, 1942).

Perognathus flavescens perniger Osgood†*

1904. *Perognathus flavescens perniger* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 127, June 9, 1904.

Type Locality.—Vermillion, Clay County, S. Dak. *Range.*—East of Missouri River in North Dakota (except at Breien), South Dakota, Minnesota, and Iowa; north to Finley, Steele County, N. Dak., and Elk River, Sherburne County, Minn.; east to Delaware County, Iowa, and south to Randolph, Fremont County, Iowa (Fichter, Journ. Mamm., vol. 20, No. 3, p. 377, Aug. 14, 1939).

Perognathus flavescens olivaceogriseus Swenk

1940. *Perognathus flavescens olivaceogriseus* Swenk, Missouri Valley Fauna, Lincoln, No. 3, p. 6, June 5, 1940.

Type Locality.—Chadron, Dawes County, Nebr. *Range.*—Presumably a narrow belt lying between conifer-bearing Pine Ridge and largely treeless, much eroded buttes and ravines of northern escarpment of Dawes Table, on the south, and almost solid areas of Pierre clays, clay loams, and loams, north of Antelope and Squaw Creeks in northern Sioux County, terraces of Little Cottonwood Creek and White River, in central Dawes County, and on north, extreme northwestern corner of Sheridan County, Nebr.

Perognathus flavescens copei Rhoads*

1894. *Perognathus copei* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, 1893, p. 404, Jan. 27, 1894.

1905. *Perognathus flavescens copei* V. Bailey, North Amer. Fauna No. 25, p. 143, Oct. 24, 1905.

Type Locality.—Near Mobeetie, Wheeler County, Tex. *Range.*—Panhandle and western part of main section of Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 114, July 1939) south at least to sandhills 20 miles north of Monahans, Ward County, Tex. (V. Bailey, loc. cit.); and north through south-central Kansas to Ellsworth County (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 146, Aug. 25, 1952).

Perognathus merriami merriami J. A. Allen*

1892. *Perognathus merriami* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 4, p. 45, Mar. 25, 1892.

1896. *Perognathus mearnsi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 237, Nov. 21, 1896. (Watson's Ranch, 15 miles southwest of San Antonio, Bexar County, Tex.)

Type Locality.—Brownsville, Cameron County, Tex. *Range.*—Subtropical region of southern Texas and northeastern México, and Lower Sonoran of central Texas; south to Linares in Nuevo León and Altamira in Tamaulipas; north at least to San Antonio, Bexar County, Tex.; and from Padre Island and Brownsville along Rio Grande at least as far as Comstock, Val Verde County, Tex.

Perognathus merriami gilvus Osgood†*

1900. *Perognathus merriami gilvus* Osgood, North Amer. Fauna No. 18, p. 22, Sept. 20, 1900.

Type Locality.—Eddy, near Carlsbad, Eddy County, N. Mex. *Range.*—Western Texas and eastern New Mexico; north in Pecos River Valley to Roswell, Chaves County, and in Canadian River Valley to 25 miles west of Tucumcari, Quay County, N. Mex., near northern end of Staked Plains (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 279, Mar. 1, 1932); east to Tom Green County, Tex. (Edwards, Journ. Mamm., vol. 27, No. 2, p. 106, May 14, 1946); south to Big Bend area, Brewster County, Tex. (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 23, Aug. 7, 1942), and north to Big Spring, Howard County, Tex.

Perognathus flavus flavus Baird†*

1855. *Perognatus* [sic] *flavus* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 332.

1844. *Cricetodipus flavus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884. (Part.)

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Upper and Lower Sonoran Zones from western Texas south to southeastern Chihuahua (Escalon) in northern México; westward across New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 273, Mar. 1, 1952) into southeastern Arizona (Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 26, 1937) and eastward into southwestern Texas (Sierra Blanca, Hudspeth County).

Perognathus flavus bunkeri Cockrum*

1951. *Perognathus flavus bunkeri* Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 11, p. 205, Dec. 15, 1951.

Type Locality.—Conard Farm, 1 mile east of Coolidge, Hamilton County, Kans. *Range.*—Western Nebraska, eastern Colorado, western Kansas, and western Oklahoma.

Perognathus flavus sanluisi Hill

1942. *Perognathus flavus sanluisi* Hill, Amer. Mus. Nov. No. 1212, p. 1, Dec. 7, 1942.

Type Locality.—Nine miles east of Center, Saguache County (or 20 miles northwest of Alamosa, Alamosa County), Colo. Altitude, 7,580 feet. *Range.*—Probably most of floor of San Luis Valley, and around margins, where soil and flora are suitable in south-central Colorado.

Perognathus flavus piperi Goldman†*

1917. *Perognathus flavus piperi* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 148, July 27, 1917.

Type Locality.—Twenty-three miles southwest of Newcastle, Weston County, northeastern Wyoming. *Range.*—Probably ranging at low elevations throughout eastern Wyoming and western South Dakota.

Perognathus flavus bimaculatus Merriam†*

1889. *Perognathus bimaculatus* Merriam, North Amer. Fauna No. 1, p. 12, Oct. 25, 1889.

1900. *Perognathus flavus bimaculatus* Osgood, North Amer. Fauna No. 18, p. 24, Sept. 20, 1900.

Type Locality.—Fort Whipple, near Prescott, Yavapai County, Ariz. *Range.*—Plateau region of central Arizona.

Perognathus flavus hopiensis Goldman†*

1932. *Perognathus flavus hopiensis* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 89, June 21, 1932.

Type Locality.—Oraibi, Hopi Indian Reservation, Navajo County, Ariz. Altitude, 6,000 feet. *Range.*—Painted Desert region of northeastern Arizona, southeastern Utah, southwestern Colorado, and northwestern New Mexico.

Perognathus flavus fuliginosus Merriam†*

1890. *Perognathus fuliginosus* Merriam, North Amer. Fauna No. 3, p. 74, Sept. 11, 1890.

1900. *Perognathus flavus fuliginosus* Osgood, North Amer. Fauna No. 18, p. 25, Sept. 20, 1900.

Type Locality.—Cedar belt northeast of San Francisco Mountain, Coconino County, Ariz. Altitude, 7,000 feet. *Range.*—Lava beds in vicinity of San Francisco Mountain, Ariz.; west at least to Bly (Hargrave, Journ. Mamm., vol. 18, No. 2, p. 101, May 12, 1937) and north to Red Horse Wash, a tributary of Havasu Creek, near southern boundary of Grand Canyon National Park (Grater, Journ. Mamm., vol. 17, No. 2, p. 170, May 18, 1936).

Perognathus flavus sonoriensis Nelson and Goldman†*

1934. *Perognathus flavus sonoriensis* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 24, No. 6, p. 267, June 15, 1934.

Type Locality.—Costa Rica Ranch, lower Río Sonora, Sonora, México. *Range.*—Low desert plains of middle western Sonora.

Perognathus flavus mexicanus Merriam†*

1894. *Perognathus flavus mexicanus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 265, Sept. 27, 1894.

Type Locality.—Tlalpan, Distrito Federal, México. *Range.*—Upper and Lower Sonoran Zones of southern half of table land of México; from Berriozabal in Zacatecas, and Ahualulco in San Luis Potosí, south to near San Andreas and Laguna Salada in Puebla (Davis, Journ. Mamm., vol. 25, No. 4, p. 390, Dec. 12, 1944). Recorded also 21 miles southwest of Guadalajara, Jalisco, México (Twente and Baker, Journ. Mamm., vol. 32, No. 1, p. 121, Feb. 15, 1951).

Perognathus apache apache Merriam†*

1889. *Perognathus apache* Merriam, North Amer. Fauna No. 1, p. 14, Oct. 25, 1889.

Type Locality.—Keams Canyon, Navajo County, Ariz. *Range.*—Northeastern Arizona, including Painted Desert, south at least to Winslow and Holbrook in Navajo County; and northwestern and western New Mexico, east at least on to higher levels of Rio Grande and San Juan Valleys, and south to Deming, Luna County (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 277, Mar. 1, 1932). Recorded also from plain south of Navajo Mountain at junction of Colorado and San Juan Rivers, southeastern Utah (Benson, Univ. California Publ.

Zool., vol. 40, No. 14, p. 451, Dec. 31, 1935), and to vicinity of Bluff north of San Juan River (Kelson, Univ. Utah Biol. Ser., vol 11, No. 3, p. 63, Feb. 15, 1951).

Perognathus apache cleomophila Goldman†*

1918. *Perognathus apache cleomophila* Goldman, Proc. Biol. Soc. Washington, vol. 31, p. 23, May 16, 1918.

Type Locality.—Winona, Coconino County, Ariz. Altitude, 6,400 feet. *Range.*—Lava beds region east of San Francisco Mountain, Coconino County.

Perognathus apache caryi Goldman†*

1918. *Perognathus apache caryi* Goldman, Proc. Biol. Soc. Washington, vol. 31, p. 24, May 16, 1918.

Type Locality.—Eight miles west of Rifle, Garfield County, Colo. *Range.*—Valley of Grand River and other affluents of Colorado River in western and southwestern Colorado (see Warren, The mammals of Colorado, . . ., p. 177, 1942); and eastern Utah from East Tavaputs Plateau south to San Juan River Valley (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 62, Feb. 15, 1951).

Perognathus apache relictus Goldman†*

1938. *Perognathus apache relictus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 495, Nov. 14, 1938.

Type Locality.—Medano Springs Ranch, 15 miles northeast of Mosca, San Luis Valley, Alamosa County, central southern Colorado. Altitude, 7,600 feet. *Range.*—San Luis Valley, Colo., and high valleys of central-northern New Mexico, west of Lake Burford, and south to Upper Pecos River Valley; intergrading with typical *apache* in Rio Grande Valley.

Perognathus apache gypsi Dice

1929. *Perognathus gypsi* Dice, Occ. Pap. Mus. Zool. Univ. Michigan No. 203, p. 1, June 19, 1929.

1933. *Perognathus apache gypsi* Benson, Univ. California Publ. Zool., vol. 40, No. 1, p. 26, June 13, 1933.

Type Locality.—White Sands, 12 miles southwest of Alamogordo, Otero County, N. Mex. *Range.*—Known only from white sands of Otero County.

Perognathus apache melanotis Osgood†*

1900. *Perognathus apache melanotis* Osgood, North Amer. Fauna No. 18, p. 27, Sept. 20, 1900.

Type Locality.—Casas Grandes, northwestern Chihuahua, México. *Range.*—Known from type locality only.

Perognathus callistus Osgood†*

1900. *Perognathus callistus* Osgood, North Amer. Fauna No. 18, p. 28, Sept. 20, 1900.

Type Locality.—Kinney Ranch, Green River Basin, near Bitter Creek, Sweetwater County, Wyo. *Range.*—Red Desert in vicinity of type locality; and Snake River, about 7 miles above junction with Bear River, and at Two Bar Spring, 20 miles west, Moffat County, northwestern Colorado (F. W. Miller, Journ. Mamm., vol. 9, No. 4, p. 337, Nov. 13, 1928).

longimembris—group

Perognathus longimembris longimembris (Coues)†*

1875. *O[tognosis] longimembris* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 27, p. 305, Aug. 31, 1875.

1889. *Perognathus longimembris* Merriam, North Amer. Fauna No. 1, p. 13, Oct. 25, 1889.

1904. *Perognathus elibatus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 252, Jan. 7, 1904. (Lockwood Valley near Mount Pinos, Ventura County, Calif. For status see Osgood, Proc. Biol. Soc. Washington, vol. 31, p. 96, June 29, 1918.)

1904. *Perognathus pericalles* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 252, Jan. 7, 1904. (Keeler, Owens Lake, Inyo County, Calif. Regarded as identical with *longimembris* by Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 147, Sept. 26, 1933.)

Type Locality.—Old Fort Tejon, Cañada de las Uvas, Tehachapi Mountains, Kern County, Calif. *Range.*—Mountains in near vicinity of Fort Tejon, in Kern and Ventura Counties, and thence east and north over Mohave Desert, to Walker Pass region (west to Onyx, Kern County), to Owens Valley, Inyo County (north to Laws), to vicinity of Providence Mountains and Lavic, San Bernardino County; and westward to Lancaster, Los Angeles County (Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 2, p. 6, Dec. 4, 1937) and Lockwood Valley near Mount Pinos, Ventura County (Grinnell, loc. cit.); also, possibly, northwest sparingly through San Joaquin and Sacramento Valleys to Marysville Buttes, Sutter County; zonal range, Upper and Lower Sonoran; vertical range, from about 100 feet (Lodi, San Joaquin County) up to 6,000 feet toward Kearsarge Pass, west of Independence, Inyo County, Calif. (Grinnell, loc. cit.).

Perognathus longimembris tularensis W. B. Richardson

1937. *Perognathus longimembris tularensis* W. B. Richardson, Journ, Mamm., vol. 18, No. 4, p. 510, Nov. 22, 1937.

Type Locality.—One mile west of Kennedy Meadows, South Fork Kern River, Tulare County, Calif. Altitude, 6,000 feet. *Range.*—Known only from Kennedy and Chimney Meadows in southern Sierra Nevada, but probably occurs in northern drainage area of South Fork Kern River, from vicinity of Tulare–Kern County line north to Windy Springs, Calif.

Perognathus longimembris salinensis Bole

1937. *Perognathus longimembris salinensis* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 2, p. 3, Dec. 4, 1937.

Type Locality.—One mile north of Salt Camp on edge of salt lake, Saline Valley, Inyo County, Calif. *Range.*—Mesquite thickets and woodlands on floor of Saline Valley, Inyo County, Calif. chiefly west of the saltpans.

Perognathus longimembris panamintinus Merriam†*

1894. *Perognathus longimembris panamintinus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 265, Sept. 27, 1894.

Type Locality.—Perognathus Flat, near Emigrant Gap [near Bench Mark 4899, 2 miles northwest of Harrisburg, on U. S. Geol. Surv. Ballarat Quadrangle], Panamint Mountains, Inyo County, Calif. Altitude, 5,200 feet. *Range.*—Panamint Mountains, Inyo County, west at least to near Darwin, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 148, Sept. 26, 1933) ; and western Nevada from Quinn River Crossing in Humboldt County south into Clark County (Hall, Mammals of Nevada, p. 360, July 1, 1946). Recorded also from Oasis and Morans, Mono County, Calif. (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 366, Dec. 15, 1952).

Perognathus longimembris psammophilus von Bloeker

1937. *Perognathus longimembris psammophilus* von Bloeker, Proc. Biol. Soc. Washington, vol. 50, p. 153, Sept. 10, 1937.

Type Locality.—West side of Arroyo Seco, 4 miles south of Soledad, Monterey County, Calif. Altitude, 150 feet. *Range.*—Fine-textured sandy areas in Salinas Valley and Carrizo Plains region of south-central California, from Soledad, Monterey County, southeast at least to Santiago Springs, San Luis Obispo County, Calif.

Perognathus longimembris bangsi Mearns*

1898. *Perognathus longimembris bangsi* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 300, Aug. 31, 1898.

1900. *Perognathus panamintinus arenicola* Stephens†, Proc. Biol. Soc. Washington, vol. 13, p. 151, June 13, 1900. (San Felipe Narrows, San Diego County, Calif. Regarded as identical with *bangsi* by Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 329, August 28, 1913; and by Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 8, p. 88 (footnote), Jan. 18, 1928.)

Type Locality.—Palm Springs, Colorado Desert, Riverside County, Calif. Altitude, 450 feet. *Range.*—Lower parts of Colorado Desert from San Felipe Narrows, San Diego County, north to Whitewater Ranch, Riverside County, California (Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 11, p. 50, Aug. 31, 1939), and eastward to Parker, Yuma County, Arizona (Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 2, p. 6, Dec. 4, 1937).

Perognathus longimembris brevinasus Osgood†*

1900. *Perognathus panamintinus brevinasus* Osgood, North Amer. Fauna No. 18, p. 30, Sept. 20, 1900. (Regarded as perhaps a synonym of *longimembris* by Osgood, Proc. Biol. Soc. Washington, vol. 31, p. 96, June 29, 1918.)

1928. *Perognathus longimembris brevinasus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 8, p. 88, Jan. 18, 1928.

Type Locality.—San Bernardino [about 2 miles east of present city center], San Bernardino County, Calif. *Range.*—From San Fernando, Los Angeles County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 148, Sept. 26, 1933), eastward to Cabezon, Riverside County (Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 11, p. 50, Aug. 31, 1939), and south to 2½ miles north of Oak Grove, San Diego County, Calif. (Huey, 1939, loc. cit.).

Perognathus longimembris pacificus Mearns†*

1898. *Perognathus pacificus* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 299, Aug. 31, 1898.

1932. *Perognathus longimembris pacificus* von Bloeker, Proc. Biol. Soc. Washington, vol. 45, p. 128, Sept. 9, 1932.

1932. *Perognathus longimembris cantwelli* von Bloeker, Proc. Biol. Soc. Washington, vol. 45, p. 128, Sept. 9, 1932. (Hyperion, Los Angeles County, Calif. Regarded as identical with *pacificus* by Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 11, pp. 48, 49, Aug. 31, 1939.)

Type Locality.—Mexican boundary monument No. 258, shore of Pacific Ocean, San Diego County, Calif. (See von Bloeker, Journ. Mamm., vol. 12, No. 4, p. 369, Nov. 11, 1931.) *Range.*—A narrow sea-facing strip of territory extending northwest from near mouth of Tia Juana River, southwestern San Diego County, to Palisades del Rey, Los Angeles County, Calif. (von Bloeker, 1932, p. 129).

Perognathus longimembris internationalis Huey

1939. *Perognathus longimembris internationalis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 11, p. 47, Aug. 31, 1939.

Type Locality.—Baja California side of international boundary at Jacumba, San Diego County, Calif. *Range.*—Known only from both sides of international boundary in Jacumba Valley.

Perognathus longimembris aestivus Huey

1928. *Perognathus longimembris aestivus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 8, p. 87, Jan. 18, 1928.

Type Locality.—Sangre de Cristo, lat. 31° 52′ N., long. 116° 06′ W., Valle San Rafael, western base of Sierra Juárez, Baja California, México. *Range.*—Known from type locality only. Upper Sonoran Zone.

Perognathus longimembris venustus Huey

1930. *Perognathus longimembris venustus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 6, No. 17, p. 233, Dec. 24, 1930.

Type Locality.—San Agustín, lat. 30° N., long. 115° W., Baja California, México. *Range.*—Known from type locality only.

Perognathus longimembris kinoensis Huey

1935. *Perognathus longimembris kinoensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 12, p. 73, Aug. 24, 1935.

Type Locality.—Bahía Kíno (more precisely, from northern end of sand dune peninsula that borders bay and forms northern arm of estuary), Sonora, México. *Range.*—Probably throughout most of arid desert of northwestern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 43, Feb. 15, 1938).

Perognathus longimembris bombycinus Osgood†*

1907. *Perognathus bombycinus* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 19, Feb. 23, 1907.

1929. *Perognathus longimembris bombycinus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 104, Mar. 25, 1929.

Type Locality.—Yuma, Yuma County, Ariz. *Range.*—Colorado River Valley from near Ehrenberg, Yuma County, Ariz. (Grinnell, Univ. California Publ. Zool., vol. 12, No. 4, p. 243, Mar. 20, 1914), south to Colonia Lerdo, Sonora, México. Recorded also at 3 miles west of Pilot Knob, Imperial County, Calif. (Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 356, June 15, 1937).

Perognathus longimembris pimensis Huey

1937. *Perognathus longimembris pimensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 355, June 15, 1937.

Type Locality.—Eleven miles west of Casa Grande, Pinal County, Ariz. *Range.*—Vicinity west of Phoenix, Maricopa County, Ariz., thence south to type locality.

Perognathus longimembris arizonensis Goldman†*

1931. *Perognathus longimembris arizonensis* Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 134, Oct. 17, 1931.

Type Locality.—Ten miles south of Jacobs Pools, House Rock Valley, north side of Marble Canyon of Colorado River, Coconino County, Ariz. Altitude, 4,000 feet. *Range.*—House Rock Valley, northern Arizona, and northward at least to Kaiparowits Plateau, Kane County, southern Utah (Tanner, Great Basin Naturalist, vol. 1, p. 104, June 30, 1940).

Perognathus longimembris nevadensis Merriam†*

1894. *Perognathus nevadensis* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 264, Sept. 27, 1894.

1933. *Perognathus longimembris nevadensis* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 147, Sept. 26, 1933.

Type Locality.—Halleck, East Humboldt Valley, Elko County, Nev. *Range.*—Northern and central Nevada; northwestern Nevada west of Black Rock Desert and east of Black Rock Desert from Oregon boundary south to Smiths Creek Valley, east to Halleck and to near Eureka (Hall, Mammals of Nevada, p. 360, July 1, 1946); Tumtum Lake and Rome on Owyhee River, southeastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 248, Aug. 29, 1936); and Great Basin territory along eastern border of California; south to near Eagleville, Modoc County; intergradation toward *longimembris* south through upper part of Owens Valley, Inyo County; zonal range, Upper Sonoran; vertical range from 4,750 feet near Eagleville to at least 5,600 feet near Benton (Grinnell, loc. cit.).

Perognathus longimembris gulosus Hall

1941. *Perognathus longimembris gulosus* Hall, Proc. Biol. Soc. Washington, vol. 54, p. 55, May 20, 1941.

Type Locality.—Half a mile south of Smith Creek Cave, Mount Moriah, White Pine County, Nev. Altitude, 5,800 feet. *Range.*—Eastern Nevada south from near Montello in Elko County to near Baker in White Pine County (Hall, Mammals of Nevada, p. 364, July 1, 1946); and in adjoining Utah from Kelton, Box Elder County, southward to 5 miles south of Garrison, Millard County (Hall, op. cit., p. 56).

Perognathus longimembris virginis Huey†

1939. *Perognathus longimembris virginis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 12, p. 55, Aug. 31, 1939.

Type Locality.—St. George, Washington County, Utah. Altitude, 2,950 feet. *Range.*—Virgin River Valley in vicinity of St. George, Utah; and in Nevada the Virgin River Valley and southern half of Lincoln County westward into Nye County (Hall, Mammals of Nevada, p. 363, July 1, 1946).

Perognathus longimembris arcus Benson

1935. *Perognathus longimembris arcus* Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 451, Dec. 31, 1935.

Type Locality.—Rainbow Bridge, San Juan County, southeastern Utah. *Range.*—Known from type locality only.

Perognathus amplus amplus Osgood†*

1900. *Perognathus amplus* Osgood, North Amer. Fauna No. 18, p. 32, Sept. 20, 1900.

Type Locality.—Fort Verde, eastern Yavapai County, Ariz. *Range.*—Upper part of Verde River Valley, Ariz.

Perognathus amplus jacksoni Goldman†*

1933. *Perognathus amplus jacksoni* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 465. Oct. 15, 1933.

Type Locality.—Congress Junction, southwestern Yavapai County, Ariz. Altitude, 3,000 feet. *Range.*—Desert regions of central western and south-central Arizona, south of range of *amplus.*

Perognathus amplus ammodytes Benson*

1933. *Perognathus amplus ammodytes* Benson, Proc. Biol. Soc. Washington, vol. 46, p. 110, Apr. 27, 1933.

Type Locality.—Two miles south of Cameron, Coconino County, Ariz. *Range.*—Known from near type locality in valley of Little Colorado River.

Perognathus amplus cineris Benson*

1933. *Perognathus amplus cineris* Benson, Proc. Biol. Soc. Washington, vol. 46, p. 109, Apr. 27, 1933.

Type Locality.—Near Wupatki Ruins, Wupatki National Monument, about 27 miles northeast of Flagstaff, Coconino County, Ariz. *Range.*—Known only from ground covered with black volcanic cinders in vicinity of Wupatki Ruins, Coconino County.

Perognathus amplus pergracilis Goldman†*

1932. *Perognathus amplus pergracilis* Goldman, Journ. Washington Acad. Sci., vol. 22, No. 13, p. 387, July 19, 1932.

Type Locality.—Hackberry, Mohave County, Ariz. Altitude, 3,500 feet. *Range.*—Desert region of northwestern Arizona south of Grand Canyon. Recorded also from Parker, Yuma County, Ariz. (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 365, Dec. 15, 1952).

Perognathus amplus rotundus Goldman†*

1932. *Perognathus amplus rotundus* Goldman, Journ. Washington Acad. Sci., vol. 22, No. 13, p. 387, July 19, 1932.

Type Locality.—Wellton, Yuma County, Ariz. *Range.*—Desert region of southwestern Arizona, and adjoining desert of northwestern Sonora, México. Recorded at Papago Tanks on western edge of Pinacate lava flow, northwestern Sonora (Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 26, 1937).

Perognathus amplus taylori Goldman†*

1932. *Perognathus amplus taylori* Goldman, Journ. Washington Acad. Sci., vol. 22, No. 16, p. 488, Oct. 19, 1932.

Type Locality.—Santa Rita Range Reserve (near Northeast Station), 35 miles south of Tucson, Pima County, Ariz. Altitude, about 4,000 feet. *Range.*—Desert region of southern Arizona and probably northern Sonora, México, east of range of *rotundus.*

Perognathus inornatus inornatus Merriam†*

1889. *Perognathus inornatus* Merriam, North Amer. Fauna No. 1, p. 15, Oct. 25, 1889.

Type Locality.—Fresno, Fresno County, Calif. *Range.*—San Joaquin and Sacramento Valleys, from Weldon and Rose Station, Kern County, northwest to Sites, Colusa County, and Marysville Buttes, Sutter County, Calif; zonal range, Lower and Upper Sonoran; vertical range, from 50 feet (Lodi, San Joaquin County) up to 3,350 feet at Walker Basin, Kern County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 149, Sept. 26, 1933).

Perognathus inornatus neglectus Taylor*

1912. *Perognathus longimembris neglectus* Taylor, Univ. California Publ. Zool., vol. 10, No. 6, p. 155, May 21, 1912.

1918. *Perognathus inornatus neglectus* Osgood, Proc. Biol. Soc. Washington, vol. 31, p. 96, June 29, 1918.

Type Locality.—McKittrick, Kern County, Calif. Altitude, 1,111 feet. *Range.*—West side of southern San Joaquin Valley, in vicinity of McKittrick, Kern County, and on Carrizo Plain, San Luis Obispo County; zonal range, Lower Sonoran; vertical range, from 1,100 feet (near McKittrick) up to 2,600 feet at Santiago Spring, edge of Carrizo Plain (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 149, Sept. 26, 1933).

Perognathus inornatus sillimani von Bloeker

1937. *Perognathus inornatus sillimani* von Bloeker, Proc. Biol. Soc. Washington, vol. 50, p. 154, Sept. 10, 1937.

Type Locality.—West side of Arroyo Seco Wash, 4 miles south of Soledad, Monterey County, Calif. *Range.*—Sandy washes in Salinas Valley, Calif., from Soledad, Monterey County, south at least to San Miguel, San Luis Obispo County.

parvus—group

Perognathus parvus parvus (Peale)*

1848. *Cricetodipus parvus* Peale, Mammalia and ornithology, *in* United States exploring expedition during the years 1838–42, under the command of Charles Wilkes, U. S. N., Philadelphia, vol. 8, p. 53.

1858. *Perognathus monticola* Baird†, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 422, July 14, 1858. (West of Rocky Mountains, St. Marys ? [=St. Mary's Mission at Stevensville, Mont.]; regarded by Osgood, North Amer. Fauna No. 18, p. 36, Sept. 20, 1900, as having been collected in vicinity of The Dalles, Wasco County, Oreg. See also V. Bailey, Journ. Mamm., vol. 14, No. 3, p. 242, Aug. 17, 1933.)

1858. *Perognathus parvus* Cassin, Mammalogy and ornithology, *in* United States exploring expedition . . . 1838–42, vol. 8, p. 48.

1884. *Perognathus monticola* and *Cricetodipus parvus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.

Type Locality.—Oregon, probably in neighborhood of The Dalles, Wasco County. *Range.*—Southeastern Washington south of Snake River, the area on north side of Columbia River in Klickitat County, and Yakima River Valley area as far north as Vantage, Kittitas County (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 298, Apr. 9, 1948); Upper Sonoran area of eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 244, Aug. 29, 1936); along Snake River and its tributaries in southwestern Idaho (Davis, The Recent mammals of Idaho, p. 263, Apr. 5, 1939); and extreme northwestern Nevada (Hall, Mammals of Nevada, p. 367, July 1, 1946).

Perognathus parvus columbianus Merriam†*

1894. *Perognathus columbianus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 263, Sept. 27, 1894.

1900. *Perognathus lordi columbianus* Osgood, North Amer. Fauna No. 18, p. 40, Sept. 20, 1900.

1948. *Perognathus parvus columbianus* Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 299, Apr. 9, 1948.

Type Locality.—Pasco, Franklin County, Wash. *Range.*—Vicinity of type locality, and part of Columbia Plateau north of Snake River and east of Columbia River, Wash. (Dalquest, loc. cit.).

Perognathus parvus laingi Anderson

1932. *Perognathus laingi* Anderson, Nat. Mus. Canada Bull. 70, p. 100, Nov. 24, 1932.

1947. *Perognathus parvus laingi* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 130, Jan. 24, 1947.

Type Locality.—Anarchist Mountain, lat. 49°08′ N., long. 119°32′ W., near Osoyoos-Bridesville Summit, about 8 miles east of Osoyoos Lake, British Columbia. Altitude, about 3,500 feet. *Range.*—Known from type locality only. Zonal range, Transition.

Perognathus parvus lordi (Gray)*

1868. *Abromys lordi* Gray, Proc. Zool. Soc. London, 1868, pt. 1, p. 202, May 1868.

1889. *Perognathus lordi* Merriam, North Amer. Fauna No. 1, p. 28, Oct. 25, 1889.

1894. *Perognathus lordi* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 45, (1893), p. 405, Jan. 30, 1894.

1939. *Perognathus parvus lordi* Davis, The Recent mammals of Idaho, p. 266, Apr. 5, 1939.—Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 130, Jan. 24, 1947.

Type Locality.—Southern British Columbia, Canada. *Range.*—In southern British Columbia along Okanagan River, Okanagan Lake, lower Kettle River, and lower Similkameen Valley north to Thompson River (Anderson, loc. cit.); and in Washington, Okanogan Valley and Columbia Plateau, except for southwestern part (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 299, Apr. 9, 1948).

Perognathus parvus idahoensis Goldman†*

1922. *Perognathus parvus idahoensis* Goldman, Proc. Biol. Soc. Washington, vol. 35, p. 105, Oct. 17, 1922.

Type Locality.—Echo Crater, Craters of the Moon National Monument, 20 miles southwest of Arco, Butte County, southern Idaho. *Range.*—Apparently restricted to lava beds of Snake River, Idaho (Davis, The Recent mammals of Idaho, p. 265, Apr. 5, 1939).

Perognathus parvus clarus Goldman†*

1917. *Perognathus parvus clarus* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 147, July 27, 1917.

Type Locality.—Cumberland, Lincoln County, Wyo. *Range.*—Green River Valley in southwestern Wyoming; and upper part of Snake River Valley, in southeastern Idaho, west at least to Minidoka County (Davis, The Recent mammals of Idaho, p. 264, Apr. 5, 1939). Recorded also in Daggett County (2 miles north of Linwood) in northeastern Utah (R. D. Svihla, Journ. Mamm., vol. 12, No. 3, p. 262, August 24, 1931).

Perognathus parvus olivaceus Merriam†*

1889. *Perognathus olivaceus* Merriam, North Amer. Fauna No. 1, p. 15, Oct. 25, 1889.

1889. *Perognathus olivaceus amoenus* Merriam†, North Amer. Fauna No. 1, p. 16, Oct. 25, 1889. (Nephi, Juab County, Utah.)

1900. *Perognathus parvus olivaceus* Osgood, North Amer. Fauna No. 18, p. 37, Sept. 20, 1900.

1900. *Perognathus parvus magruderensis* Osgood†, North Amer. Fauna No. 18, p. 38, Sept. 20, 1900. (Mount Magruder, Esmeralda County, Nev.; altitude, 8,000 feet. Regarded as identical with *olivaceus* by Hall, Mammals of Nevada, p. 367, July 1, 1946.)

Type Locality.—Kelton, near north end of Great Salt Lake, Box Elder County, Utah. *Range.*—Great Basin, from Salmon Creek south of Snake River in southern Idaho (Davis, The Recent mammals of Idaho, p. 264, Apr. 5, 1939) southward through northern Utah (Rich, Cache, and Box Elder Counties) at least to Otter Creek in Piute County and to vicinity of Greenriver in extreme eastern Emery County (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 65, Feb. 15, 1951), and throughout Upper Sonoran Zone of Nevada (Hall, loc. cit.) to eastern margin of California, from Woodford, Alpine County, south along east base of Sierra Nevada as far at least as Little Onion Valley (west of Independence), and to Coso and Panamint Mountains in Inyo County; zonal range, Upper Sonoran and Transition; vertical range, from 5,100 feet at Fredericksburg, Alpine County, up to 8,300 feet at Indian Creek, east slope of White Mountains (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 150, Sept. 26, 1933).

Perognathus parvus plerus Goldman†*

1939. *Perognathus parvus plerus* Goldman, Journ. Mamm., vol. 20, No. 3, p. 352, Aug. 14, 1939.

Type Locality.—North end of Stansbury Island, Great Salt Lake, Utah. Altitude, 4,250 feet. *Range.*—Carrington and Stansbury Islands, Great Salt Lake.

Perognathus parvus trumbullensis Benson*

1937. *Perognathus parvus trumbullensis* Benson, Proc. Biol. Soc. Washington, vol. 50, p. 181, Oct. 28, 1937.

Type Locality.—Mount Trumbull, Mohave County, Ariz. Altitude, 6,250 feet. *Range*.—Probably throughout high plateau region in northwestern Arizona north of Colorado River wherever habitat is suitable.

Perognathus parvus mollipilosus Coues*

1875. *P[erognathus] mollipilosus* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 27, p. 296, Aug. 31, 1875.

1900. *Perognathus parvus mollipilosus* Osgood, North Amer. Fauna No. 18, p. 36, Sept. 20, 1900.

Type Locality.—Fort Crook [about 2 miles northeast of Burgettville], Shasta County, Calif. *Range*.—From Klamath Basin, Klamath County, Oreg.; south to Modoc region of northeastern California, from Warner Mountains and Surprise Valley, Modoc County, west to Mount Shasta and vicinity, in Siskiyou County, and south from Oregon line to Vinton, Plumas County; zonal range, Upper Sonoran and Transition; up to "subalpine" on Mount Shasta; vertical range from 4,000 feet (Amedee, Lassen County) up to 7,800 feet at head of Panther Creek, Mount Shasta (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 150, Sept. 26, 1933).

Perognathus xanthonotus Grinnell*

1912. *Perognathus xanthonotus* Grinnell, Proc. Biol. Soc. Washington, vol. 25, p. 128, July 31, 1912.

Type Locality.—Freeman Canyon, east slope of Walker Pass, Kern County, Calif. Altitude, 4,900 feet. *Range*.—Low portion of southern Sierra Nevada in vicinity of Walker Pass, Kern County; zonal range, Upper Sonoran and high Lower Sonoran; vertical range from 4,600 to 5,300 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 151, Sept. 26, 1933).

Perognathus alticolus alticolus Rhoads*

1894. *Perognathus alticolus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 45 (1893), p. 412, Jan. 27, 1894.

Type Locality.—Squirrel Inn [near Little Bear Valley], San Bernardino Mountains, San Bernardino County, Calif. Altitude, 5,500 feet. *Range*.—Western part of San Bernardino Mountains, San Bernardino County; all stations of capture are in near vicinity of Strawberry Peak; zonal range, Transition; vertical range from 5,400 to 5,750 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 151, Sept. 26, 1933).

Perognathus alticolus inexpectatus Huey*

1926. *Perognathus alticola inexpectatus* Huey, Proc. Biol. Soc. Washington, vol. 39, p. 121, Dec. 27, 1926.

1933. *Perognathus alticolus inexpectatus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 151, Sept. 26, 1933.

Type Locality.—Fourteen miles west of Lebec [near head of Cuddy Valley], Kern County, Calif. Altitude, 6,000 feet. *Range*.—Grassy flats among scattered yellow pines at type locality. Zonal range, Transition.

formosus—group

Perognathus formosus formosus Merriam†*

1889. *Perognathus formosus* Merriam, North Amer. Fauna No. 1, p. 17, Oct. 25, 1889.

Type Locality.—St. George, Washington County, Utah. *Range.*—Southwestern Utah and probably northwestern Arizona north of Colorado River.

Perognathus formosus incolatus Hall

1941. *Perognathus formosus incolatus* Hall, Proc. Biol. Soc. Washington, vol. 54, p. 56, May 20, 1941.

Type Locality.—Two miles west of Smith Creek Cave, Mount Moriah, White Pine County, Nev. *Range.*—Eastern slope of Mount Moriah, White Pine County, on eastern border of Nevada (Hall, Mammals of Nevada, p. 373, July 1, 1946), and Millard County in extreme western Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 245, Aug. 10, 1952).

Perognathus formosus melanurus Hall

1941. *Perognathus formosus melanurus* Hall, Proc. Biol. Soc. Washington, vol. 54, p. 57, May 20, 1941.

Type Locality.—Lat. 40°28′ N., 6 miles east of California boundary, Washoe County, Nev. Altitude, 4,000 feet. *Range.*—Smoke Creek Desert and vicinity; from southwestern Humboldt County, Nev., south to Truckee River, and from near Toulon, Pershing County, Nev., west to vicinity of Stacy, eastern Lassen County, Calif.

Perognathus formosus mohavensis Huey

1938. *Perognathus formosus mohavensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 8, p. 35, Nov. 21, 1938.

Type Locality.—Bonanza King Mine, Providence Mountains, San Bernardino County, Calif. *Range.*—Argus, Panamint, and Providence Mountains in Inyo and San Bernardino Counties, Calif., and without doubt generally over Mohave Desert region; and in western Nevada north as far as Walker River and across southern Nevada northward into Hot Creek Valley of eastern Nye County (Hall, Mammals of Nevada, p. 372, July 1, 1946); eastward to Washington County in extreme southwestern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 246, Aug. 10, 1952).

Perognathus formosus mesembrinus Elliot

1904. *Perognathus mesembrinus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 251, Jan. 7, 1904.

1929. *Perognathus formosus mesembrinus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 106, Mar. 25, 1929.

Type Locality.—Palm Springs, Riverside County, Calif. *Range.*—Western rim of Colorado Desert, north from near Mexican boundary in Imperial County to near Palm Springs, Riverside County, Calif.; zonal range, Lower Sonoran; vertical range, from 450 feet (near Palm Springs) up to 2,300 feet at La Puerta Valley, eastern San Diego County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 152, Sept. 26, 1933).

Perognathus formosus cinerascens Nelson and Goldman

1929. *Perognathus formosus cinerascens* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 105, Mar. 25, 1929.

Type Locality.—San Felipe, northeastern Baja California, México. *Range.*—Known from type locality only.

Subgenus CHAETODIPUS Merriam

1889. *Chaetodipus* Merriam, North Amer. Fauna No. 1, p. 5, Oct. 25, 1889. (Type, *Perognathus spinatus* Merriam.)

baileyi—group

Perognathus baileyi baileyi Merriam†*

1894. *Perognathus baileyi* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 262, Sept. 27, 1894.

Type Locality.—Magdalena, Sonora, México. *Range.*—From Salt River Valley in east-central Arizona (Goldman, Proc. Biol. Soc. Washington, vol. 41, p. 205, Dec. 18, 1928) south through most of Sonora, except higher mountains along eastern border, to Obregon (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 44, Feb. 15, 1938).

Perognathus baileyi domensis Goldman†*

1928. *Perognathus baileyi domensis* Goldman, Proc. Biol. Soc. Washington, vol. 41, p. 204, Dec. 18, 1928.

Type Locality.—Castle Dome (at base of Castle Dome Peak), Yuma County, Ariz. Altitude, 1,400 feet. *Range.*—Recorded also in Yuma County at Tinajas Altas (Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 27, 1937) and Cabeza Prieta Mountains (Halloran, Journ. Mamm., vol. 28, No. 1, p. 65, Feb. 17, 1947).

Perognathus baileyi hueyi Nelson and Goldman

1929. *Perognathus baileyi hueyi* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 106, Mar. 25, 1929.

Type Locality.—San Felipe, northeastern Baja California, México. *Range.*—Desert region east of Sierra San Pedro Mártir in northeastern Baja California; specimens from Calamahué and Onyx tend toward *hueyi* (Nelson and Goldman, Journ. Washington Acad. Sci., vol. 20, No. 12, p. 224, June 19, 1930); in California, desert slopes of Coast Ranges in eastern San Diego County, north from Mountain Spring near Mexican boundary to San Felipe Narrows; zonal range, chiefly Upper Sonoran; vertical range, from 900 feet at San Felipe Narrows up to about 2,500 feet at Mountain Spring (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 152, Sept. 26, 1933).

Perognathus baileyi rudinoris Elliot*

1903. *Perognathus baileyi rudinoris* Elliot, Field Columb. Mus. Publ. 74 Zool. Ser., vol. 3, No. 10 (April), p. 167, May 7, 1903.

1903. *Perognathus knekus* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 169, May 7, 1903. (Rosarito, Sierra San Pedro Mártir, Baja California, México. Regarded as an unusually large specimen of *rudinoris* by Nelson and Goldman, Journ. Washington Acad. Sci., vol. 20, No. 12, p. 223, June 1930.)

Type Locality.—San Quintín, Baja California, México. *Range.*—Northeastern Baja California, south to about lat. 29° N.; specimens from Punta Prieta on west side approach *rudinoris* (Nelson and Goldman, op. cit., p. 224).

Perognathus baileyi extimus Nelson and Goldman†*

1930. *Perognathus baileyi extimus* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 20, No. 12, p. 223, June 19, 1930.

Type Locality.—Tres Pachitas, 36 miles south of La Paz, Baja California, México. *Range.*—Low elevations in Baja California from type locality south of La Paz north to near lat. 29° N., intergrading to the northward with *rudinoris* and *hueyi;* specimens from San Ignacio, lat. 27°16′ N., long. 113° W., regarded as typical.

Perognathus baileyi fornicatus Burt

1932. *Perognathus bailey fornicatus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 164, Oct. 31, 1932.

Type Locality.—Monserrate Island, lat. 25°38′ N., long. 111°02′ W., Gulf of California, Baja California, México. *Range.*—Monserrate Island.

Perognathus baileyi insularis Townsend†*

1912. *Perognathus baileyi insularis* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 122, June 14, 1912.

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Tiburón Island.

hispidus—group

Perognathus hispidus hispidus Baird†*

1858. *Perognathus hispidus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857,) p. 421, July 14, 1858.

1884. *Perognathus hispidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.

Type Locality.—Charco Escondido, Tamaulipas, México. *Range.*—The greater part of Texas, except high plains, Trans-Pecos area, and Red River Valley; occurs sparingly in forested region of eastern Texas and western Louisiana; north at least to Palo Pinto (Brazos) and Smith (Tyler) Counties, Tex.; east to Natchitoches and Vernon Parishes in northwestern Louisiana; and northern México as far west as Sabinas, Coahuila, and as far south as Ciudad Victoria, Tamaulipas (Glass, Journ. Mamm., vol. 28, No. 2, p. 177, June 2, 1947).

Perognathus hispidus spilotus Merriam†*

1889. *Perognathus paradoxus spilotus* Merriam, North Amer. Fauna No. 1, p. 25, Oct. 25, 1889.

1904. *Perognathus hispidus maximus* Elliot, Field Columb. Mus. Publ. 87 Zool. Ser., vol. 3, No. 14 (December 1903), p. 253, Jan. 7, 1904. (Noble, Cleveland County, Okla. Regarded as identical with *spilotus* by Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 115, July 1939; Hibbard, Trans. Kansas Acad. Sci., vol. 47, No. 1, p. 76, September 1944; and Glass, Journ. Mamm., vol. 28. No. 2, pp. 175, 177, June 2, 1947.)

1939. *Perognathus hispidus spilotus* Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 115, July 1939.

Type Locality.—Gainesville, Cooke County, Tex. *Range.*—Red River Valley of Texas, eastern Oklahoma, eastern Kansas, and southeastern Nebraska; east to Missouri River and Ozark Mountains; south at least to Cooke (Gainesville) and Marion (Jefferson) Counties, Tex.; intergrading on south with *hispidus* south of Red River somewhere between Hardeman (Chillicothe) and Clay (Henrietta) Counties, Tex.; and intergrading on west with *paradoxus* near western border of Oklahoma, the line of division extending from near eastern edge of Dewey County and middle of Woods County (Glass, op. cit., p. 178); northward through central Kansas, west certainly to Mitchell, Ellsworth, and Barber Counties, and east certainly to Pottawatomie, Lyon, and Montgomery Counties (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 150, Aug. 25, 1952).

Perognathus hispidus paradoxus Merriam†*

1889. *Perognathus paradoxus* Merriam, North Amer. Fauna No. 1, p. 24, Oct. 25, 1889.

1894. *Perognathus latirostris* Rhoads, Amer. Nat., vol. 28, p. 185, February 1894. (Rocky Mountains.)

1894. *Perognathus conditi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 318, Nov. 7, 1894. (San Bernardino Ranch, Cochise County, Ariz.)

1900. *Perognathus hispidus paradoxus* Osgood, North Amer. Fauna No. 18, p. 44, Sept. 20, 1900.

Type Locality.—Banner, Trego County, Kan. *Range.*—Short and mixed grasslands and southwestern desert, from extreme southern North Dakota (west of Missouri River), most of South Dakota west of Missouri River, extreme eastern border of Wyoming, Nebraska (except southeastern area occupied by *spilotus*), eastern Colorado, western Kansas (west of Cloud and Harper Counties), Panhandle and extreme western portion of Oklahoma, high plains and Trans-Pecos areas of Texas, eastern and southern parts of New Mexico (except higher mountains), southeastern quarter of Arizona, northern half of Chihuahua, and plateau of northeastern Sonora, México; east at least to Webster and Lancaster Counties, Nebr. (Glass, Journ. Mamm., vol. 28, No. 2, p. 178, June 2, 1947).

Perognathus hispidus zacatecae Osgood†*

1900. *Perognathus hispidus zacatecae* Osgood, North Amer. Fauna No. 18, p. 45, Sept. 20, 1900.

Type Locality.—Valparaiso, Zacatecas, México. *Range.*—Upper Sonoran Zone of central Mexican plateau from Valparaiso, Zacatecas, to Celaya, Guanajuato, and to near Pachuca, Hidalgo (Davis, Journ. Mamm., vol. 25, No. 4, p. 390, Dec. 12, 1944).

penicillatus—group

Perognathus penicillatus penicillatus Woodhouse†*

1852. *Perognathus penecillatus* [sic] Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 200, December 1852.

1853. *Perognathus penicillatus* Woodhouse, *in* Sitgreaves, Report of an expedition down the Zuni and Colorado Rivers, U. S. Senate; 32 Congr., 2 Sess., Exec. No. 54, p. 49, pl. 3.

1884. *Perognathus penicilliatus* (sic) True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884.

Type Locality.—San Francisco Mountain, Coconino County, Ariz. (see Hall, Mammals of Nevada, p. 377, July 1, 1946). *Range.*—Vicinity of Colorado River, from Searchlight, Clark County, southern Nevada (Hall. op. cit., p. 376), south to Yuma and east at least to Wickenberg in northern Maricopa County, Ariz. (Goldman, Proc. Biol. Soc. Washington, vol. 52, p. 33, Mar. 11, 1933; regarded as *pricei* by Hatfield, Bull. Chicago Acad. Sci., vol. 6, No. 8, p. 153, Jan. 12, 1942); in California, eastern portion of Mohave Desert, and south along Colorado River from Needles to near Potholes; zonal range, Lower Sonoran; vertical range, below 500 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 152, Sept. 26, 1933).

Perognathus penicillatus sobrinus Goldman†*

1939. *Perognathus penicillatus seorsus* Goldman, Proc. Biol. Soc. Washington, vol. 52, p. 34, Mar. 11, 1939. (Not *Perognathus spinatus seorsus* Burt, 1932.)

1939. *Perognathus penicillatus sobrinus* Goldman, Journ. Mamm., vol. 20, No. 2, p. 257, May 15, 1939. (Substitute for *seorsus* Goldman.)

Type Locality.—Sand flat along Virgin River, 7 miles above Bunkerville, Clark County, Nev. [Regarded as Mohave County, Ariz., by Hardy, Journ. Mamm., vol. 30, No. 4, p. 435, Nov. 17, 1949.] *Range.*—Sandy and alluvial soils along Muddy, Virgin, and Colorado Rivers north from Boulder Dam, Nev. (Hall, Mammals of Nevada, p. 376, July 1, 1946); and probably extending along Virgin River into extreme northwestern Arizona.

Perognathus penicillatus stephensi Merriam†*

1894. *Perognathus* (*Chaetodipus*) *stephensi* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 267, Sept. 27, 1894.

1913. *Perognathus penicillatus stephensi* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 333, Aug. 28, 1913.

Type Locality.—Mesquite Valley [edge of a little mesa near Triangle Spring], northwest arm of Death Valley, Inyo County, Calif. *Range.*—Central and western portions of Mohave Desert, from Death Valley, Inyo County, south to Victorville, San Bernardino County, and to near Peck's Butte, northeastern Los Angeles County, Calif.; zonal range, Lower Sonoran; vertical range, from near sea level (type locality) up to 2,700 feet at Victorville (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 153, Sept. 26, 1933).

Perognathus penicillatus angustirostris Osgood†*

1900. *Perognathus penicillatus angustirostris* Osgood, North Amer. Fauna No. 18, p. 47, Sept. 20, 1900.

Type Locality.—Carrizo Creek, western edge of Colorado Desert, Imperial County, Calif. *Range.*—Colorado Desert; south to northeastern Baja California and east to Colorado River; in California, west from valley of Colorado River at Fort Yuma and Pilot Knob, Imperial County, to Vallecito and La Puerta Valley, in eastern San Diego County, and north from Mexican border as far as Cabezon, Riverside County; zonal range, Lower Sonoran; vertical range, from below sea level (at several localities around margin of Salton Sea) up as high as 2,300 feet at La Puerta Valley (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 153, Sept. 26, 1933).

Perognathus penicillatus pricei J. A. Allen*

1894. *Perognathus pricei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 318, Nov. 7, 1894.

1900. *Perognathus penicillatus pricei* Osgood, North Amer. Fauna No. 18, p. 47, Sept. 20, 1900.

Type Locality.—Oposura, Sonora, México. *Range.*—Southern Arizona, west at least to Sentinel, southwestern Maricopa County, and east to Fort Bowie, northeastern Cochise County; and most of northern Sonora, except higher mountains on east, south to San José de Guaymas (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 44, Feb. 15, 1938).

Perognathus penicillatus eremicus Mearns†*

1898. *Perognathus (Chaetodipus) eremicus* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 300, Aug. 31, 1898.

1900. *Perognathus penicillatus eremicus* Osgood, North Amer. Fauna No. 18, p. 48, Sept. 20, 1900.

Type Locality.—Fort Hancock, Hudspeth County, Tex. *Range.*—Western Texas, north at least to Monahans, Ward County, and east to Brewster County in Big Bend area (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 24, Aug. 7, 1942); southern New Mexico, north at least to Tularosa, Otero County, and Garfield, Dona Ana County (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 281, Mar. 1, 1932); southeastern Arizona (Cahalane, Journ. Mamm., vol. 20, No. 4, p. 430, Nov. 14, 1939); and south into north-central México east of Sierra Madre at least to Mapimi in northeastern Durango, to La Ventura in extreme southeastern Coahuila, and to northern San Luis Potosí north and west of Matehuala (Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 362, Nov. 14, 1951).

Perognathus penicillatus atrodorsalis Dalquest*

1951. *Perognathus penicillatus atrodorsalis* Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 362, Nov. 14, 1951.

Type Locality.—Seven kilometers west of Presa de Guadalupe, San Luis Potosí, México. *Range.*—Desert plains of central part of State of San Luis Potosí from western base of Sierra Madre Oriental westward at least to type locality.

Perognathus penicillatus minimus Burt

1932. *Perognathus penicillatus minimus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 164, Oct. 31, 1932.

Type Locality.—Turner's Island, lat. 28°43′ N., long. 112°19′ W., Gulf of California, Sonora, México. *Range.*—Turner's Island.

Perognathus penicillatus seri Nelson†*

1912. *Perognathus penicillatus goldmani* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 122, June 14, 1912. (Not of Osgood, 1900.)

1912. *Perognathus penicillatus seri* Nelson, Proc. Biol. Soc. Washington, vol. 25, p. 116, June 29, 1912. (Substitute for *goldmani* Townsend.)

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Tiburón Island.

Perognathus arenarius arenarius Merriam†*

1894. *Perognathus arenarius* Merriam, Proc. California Acad. Sci., ser. 2, vol. 4, p. 461, Sept. 25, 1894.

1926. *Perognathus arenarius arenarius* Huey, Biol. Soc. Washington, vol. 39, p. 68, July 30, 1926.

Type Locality.—San Jorge, near Comondú, Baja California, México. *Range.*—Vizcaino Desert biotic province, Baja California (Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 351, Feb. 12, 1946).

Perognathus arenarius sublucidus Nelson and Goldman†*

1929. *Perognathus arenarius sublucidus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 109, Mar. 25, 1929.

Type Locality.—La Paz, Baja California, México. *Range.*—Desert lying about southwestern part of La Paz Bay, Baja California.

Perognathus arenarius ambiguus Nelson and Goldman†*

1929. *Perognathus arenarius ambiguus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 108, Mar. 25, 1929.

Type Locality.—Yubay, 30 miles southeast of Calamahue, Baja California, México. Altitude, 2,000 feet. *Range.*—Central section from San Fernando south to Vizcaíno Desert, the region of perhaps most extreme aridity in Baja California.

Perognathus arenarius helleri Elliot*

1903. *Perognathus helleri* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 166, May 7, 1903.

1926. *Perognathus arenarius helleri* Huey, Proc. Biol. Soc. Washington, vol. 39, p. 68, July 30, 1926.

Type Locality.—San Quintín, northwestern Baja California, México. *Range.*—Northwest coast of Baja California.

Perognathus arenarius mexicalis Huey

1939. *Perognathus arenarius mexicalis* Huey, Trans. San Diego Soc. Nat. Hist. vol. 9, No. 13, p. 57, Aug. 31, 1939.

Type Locality.—Los Muertos Canyon fan, lat. 32°27′ N., long. 115°53′ W., in palo verde ironwood association at Gaskill's Tank, near Laguna Salada, northern Baja California, México. *Range.*—As far as known, at two localities not far apart on western side of Laguna Salada.

Perognathus arenarius albescens Huey*

1926. *Perognathus arenarius albescens* Huey, Proc. Biol. Soc. Washington, vol. 39, p. 67, July 30, 1926.

Type Locality.—San Felipe, Baja California, México. *Range.*—As far as known, sandy area bordering San Felipe Bay, northeastern Baja California.

Perognathus arenarius albulus Nelson and Goldman†*

1923. *Perognathus penicillatus albulus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 36, p. 159, May 1, 1923.

1926. *Perognathus arenarius albulus* Huey, Proc. Biol. Soc. Washington, vol. 39, p. 68, July 30, 1926.

Type Locality.—Magdalena Island, off west coast of Baja California, México. *Range.*—Magdalena Island.

Perognathus arenarius ammophilus Osgood†*

1907. *Perognathus penicillatus ammophilus* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 20, Feb. 23, 1907.

1926. *Perognathus arenarius ammophilus* Huey, Proc. Biol. Soc. Washington, vol. 39, p. 68, July 30, 1926.

Type Locality.—Santa Margarita Island off west coast of Baja California, México. *Range.*—Santa Margarita Island.

Perognathus arenarius siccus Osgood†*

1907. *Perognathus penicillatus siccus* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 20, Feb. 23, 1907.

1929. *Perognathus arenarius siccus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 108, Mar. 25, 1929.

Type Locality.—Ceralbo Island, Gulf of California, Baja California, México. *Range.*—Known only from Ceralbo Island.

Perognathus pernix pernix J. A. Allen*

1898. *Perognathus pernix* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 149, Apr. 12, 1898.

Type Locality.—Rosario, Sinaloa, México. *Range.*—Western México from Altata and Culiacán, Sinaloa, south at least to Acaponeta, Nayarit.

Perognathus pernix rostratus Osgood†*

1900. *Perognathus pernix rostratus* Osgood, North Amer. Fauna No. 18, p. 51, Sept. 20, 1900.

Type Locality.—Camoa, Río Mayo, Sonora, México. *Range.*—Coast plains of northern Sinaloa and southern Sonora, México; in Sonora, north to Tecoripa (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 45, Feb. 15, 1938).

intermedius—group

Perognathus intermedius intermedius Merriam†*

1889. *Perognathus intermedius* Merriam, North Amer. Fauna No. 1, p. 18, Oct. 25, 1889.

1889. *Perognathus obscurus* Merriam†, North Amer. Fauna No. 1, p. 20, Oct. 25, 1889. (Camp Apache, Hidalgo County, N. Mex.)

Type Locality.—Mud Spring, Mohave County, Ariz. *Range.*—Scattered localities in Arizona south of Grand Canyon of Colorado River (Osgood, North Amer. Fauna No. 18, p. 52, Sept. 20, 1900; Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 28, 1937); north at least to Isleta, Bernalillo County, in Rio Grande Valley (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 282, Mar. 1, 1932) and to Carrizozo, Lincoln County, N. Mex. (Bradt, Journ. Mamm., vol. 13, No. 4, p. 324, Nov. 2, 1932); southeast to Culberson County (Davis and Robertson, Journ. Mamm., vol. 25, No. 3, p. 268, Aug. 14, 1942) and to Brewster County (Alpine), Tex.; and south to the city of Chihuahua in central Chihuahua, México.

Perognathus intermedius crinitus Benson*

1934. *Perognathus intermedius crinitus* Benson, Proc. Biol. Soc. Washington, vol. 47, p. 199, Oct. 2, 1934.

Type Locality.—Near (2.6 miles west) Wupatki Ruins, Coconino County, Ariz. *Range.*—Northeastern Arizona and southeastern Utah south of Colorado and San Juan Rivers; probably intergrading with *intermedius* through Grand Canyon of Colorado River.

Perognathus intermedius umbrosus Benson

1934. *Perognathus intermedius umbrosus* Benson, Proc. Biol. Soc. Washington, vol. 47, p. 200, Oct. 2, 1934.

Type Locality.—Camp Verde, Yavapai County, Ariz. *Range.*—From eastern Yavapai County (Camp Verde) west at least to Yarnell, Ariz. (Hatfield, Bull. Chicago Acad. Sci., vol. 6, No. 8, p. 153, Jan. 12, 1942).

Perognathus intermedius phasma Goldman†*

1918. *Perognathus intermedius phasma* Goldman, Proc. Biol. Soc. Washington, vol. 31, p. 22, May 16, 1918.

Type Locality.—Tinajas Altas, Gila Mountains, Yuma County, Ariz. Altitude, 1,400 feet. *Range.*—Desert mountains of extreme southwestern Arizona, doubtless adjacent parts of Sonora, México.

Perognathus intermedius nigrimontis Blossom

1933. *Perognathus intermedius nigrimontis* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 265, p. 1, June 21, 1933.

Type Locality.—Black Mountain, 10 miles south of Tucson, Pima County, Ariz. *Range.*—Known only from dark-colored lavas in vicinity of Tucson.

Perognathus intermedius pinacate Blossom

1933. *Perognathus intermedius pinacate* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 273, p. 4, Oct. 31, 1933.

Type Locality.—Papago Tanks, Sierra Pinacate, Sonora, México. *Range.*—Known only from dark-colored lavas of Sierra Pinacate in northwestern Sonora and from a narrow extension of Pinacate lava in southwestern Arizona.

Perognathus intermedius lithophilus Huey

1937. *Perognathus intermedius lithophilus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 355, June 15, 1937.

Type Locality.—Puerto Libertad (or, exactly, the summit of a rocky hill 1½ miles north-northwest of fresh water spring on beach), Sonora, México. *Range.*—So far as known, vicinity of Puerto Libertad.

Perognathus intermedius rupestris Benson

1932. *Perognathus intermedius rupestris* Benson, Univ. California Publ. Zool., vol. 38, No. 5, p. 337, Apr. 14, 1932.

Type Locality.—That part of lava beds nearest to Kenzin, Dona Ana County, N. Mex. *Range.*—Lava beds near Kenzin, Dona Ana County, N. Mex.

Perognathus intermedius ater Dice

1929. *Perognathus intermedius ater* Dice, Occ. Pap. Mus. Zool. Univ. Michigan No. 203, p. 2, June 19, 1929.

Type Locality.—Malpais Spring, 15 miles west of Three Rivers, Otero County, N. Mex. Altitude, 4,150 feet. *Range.*—Black malpais lava in Otero and Lincoln Counties, N. Mex.

Perognathus nelsoni nelsoni Merriam†*

1894. *Perognathus* (*Chaetodipus*) *nelsoni* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 266, Sept. 27, 1894.

Type Locality.—Hacienda La Parada, about 25 miles northwest of city of San Luis Potosí, San Luis Potosí, México. *Range.*—Upper and Lower Sonoran Zones of tableland of central México, from Inde in northern Durango, and Jimulco and La Ventura in southern Coahuila, south to Lagos in northwestern Jalisco, to Hacienda La Parada in southwestern San Luis Potosí, and to Berriozábal in southern Zacatecas, and east to Jaumave in southwestern Tamaulipas, México.

Perognathus nelsoni canescens Merriam†*

1894. *Perognathus* (*Chaetodipus*) *intermedius canescens* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 267, Sept. 27, 1894.

1900. *Perognathus nelsoni canescens* Osgood, North Amer. Fauna No. 18, p. 54, Sept. 20, 1900.

1938. *Perognathus collis* Blair, Occ. Pap. Mus. Zool. Univ. Michigan No. 381, p. 1, June 20, 1938. (Limpia Canyon, about 1 mile northwest of Fort Davis, Davis Mountains, Jeff Davis County, Tex.; altitude, 4,800 feet. Regarded as identical with *canescens* by Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 25, Aug. 7, 1942.)

1938. *Perognathus collis popei* Blair, Occ. Pap. Mus. Zool. Univ. Michigan, No. 381, p. 3, June 20, 1938. (Pinnacle Spring, Johnson's Ranch, Big Bend of Rio Grande, Brewster County, Tex.; altitude, 2,600 feet. Regarded as identical with *canescens* by Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 25, Aug. 7, 1942.)

Type Locality.—Jaral, Coahuila, México. *Range.*—From southern Coahuila, México, north at least to Chisos Mountains, Brewster County, Tex. (Borell and Bryant, loc. cit.), and Davis Mountains, Jeff Davis County, Tex.

Perognathus lineatus Dalquest*

1951. *Perognathus lineatus* Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 362, Nov. 14, 1951.

Type Locality.—One kilometer south of Arriaga, San Luis Potosí, México. *Range.*—Desert plains of western and central San Luis Potosí and, without doubt, adjacent parts of Guanajuato, Zacatecas, and Jalisco.

Perognathus goldmani Osgood†*

1900. *Perognathus goldmani* Osgood, North Amer. Fauna No. 18, p. 54, Sept. 20, 1900.

Type Locality.—Sinaloa, Sinaloa, México. *Range.*—Coast plains of northern Sinaloa and lowlands of southern Sonora north and west to Río Mayo (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 45, Feb. 15, 1938). Recorded also at Carimechi, on Chihuahua side of Chihuahua–Sonora boundary near Río Mayo (Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 45, Feb. 15, 1938).

Perognathus artus Osgood†*

1900. *Perognathus artus* Osgood, North Amer. Fauna No. 18, p. 55, Sept. 20, 1900.

Type Locality.—Batopilas, Chihuahua, México. *Range.*—Recorded at Batopilas in western Chihuahua, Chacala in western Durango, Culiacán in central Sinaloa, Guirocoba in southeastern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 46, Feb. 15, 1938), and Carimechi on Chihuahua side of Chihuahua–Sonora boundary near Río Mayo (Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 6, May 27, 1941).

Perognathus fallax fallax Merriam†*

1889. *Perognathus fallax* Merriam, North Amer. Fauna No. 1, p. 19, Oct. 25, 1889.

Type Locality.—Reche Canyon, 3 miles southeast of Colton, San Bernardino County, Calif. Altitude, 1,250 feet. *Range.*—Northern Baja California and southwestern California, from Mexican boundary (Tia Juana east to Jacumba) northwest to vicinity of Riverside and San Bernardino; specimens from Banning, 2,500 feet, Riverside County, indicate intergradation through San Gorgonio Pass with *pallidus;* zonal range, Lower and Upper Sonoran; vertical range, from near sea level (mouth of Tia Juana River and near San Onofre, San Diego County) up to 3,100 feet near Jacumba, San Diego County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 153, Sept. 26, 1933).

Perognathus fallax pallidus Mearns†*

1901. *Perognathus fallax pallidus* Mearns, Proc. Biol. Soc. Washington, vol. 14, p. 135, Aug. 9, 1901.

Type Locality.—Mountain Spring, halfway up east slope of Coast Range Mountains, on Mexican boundary, Imperial County, Calif. Altitude, about 2,500 feet. *Range.*—Western rim of Colorado Desert and southern margin of Mohave Desert in California; from Mexican boundary (near Mountain Spring) north along northeast slopes of main mountain divides to Cabezon, Riverside County; and at north of main San Bernardino Mountains, from Cactus Flat to Oro Grande and east to Twentynine Palms, San Bernardino County; zonal range, chiefly Lower Sonoran, locally Upper Sonoran; vertical range, from 450 feet (Palm Springs, Riverside County) up to 3,500 feet (near Dos Palmos Spring, Santa Rosa Mountains, Riverside County) and 6,000 feet at Cactus Flat, north slope of San Bernardino Mountains (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 153, Sept. 26, 1933); and southward along eastern slope of Coast Range into Baja California.

Perognathus fallax inopinus Nelson and Goldman†*

1929. *Perognathus fallax inopinus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 110, Mar. 25, 1929.

Type Locality.—Turtle (San Bartolomé) Bay, west coast of Baja California, México. *Range.*—Known from type locality only.

Perognathus anthonyi Osgood†*

1900. *Perognathus anthonyi* Osgood, North Amer. Fauna No. 18, p. 56, Sept. 20, 1900.

Type Locality.—South Bay, Cerros (Cedros) Island, Baja California, México. *Range.*—Known from type locality only.

californicus—group

Perognathus californicus californicus Merriam†*

1889. *Perognathus californicus* Merriam, North Amer. Fauna No. 1, p. 26, Oct. 25, 1889.

1889. *Perognathus armatus* Merriam†, North Amer. Fauna No. 1, p. 27, Oct. 25, 1889. (Mount Diablo, Contra Costa County, Calif.)

Type Locality.—Berkeley, Alameda County, Calif. *Range.*—Coast region of west-central California, south of Golden Gate and Strait of Carquinez; south from Redwood City, San Mateo County, and Walnut Creek and Mount Diablo, Contra Costa County, to northern Santa Cruz and southern Santa Clara Counties. Zonal range, Upper Sonoran.

Perognathus californicus marinensis von Bloeker*

1938. *Perognathus californicus marinensis* von Bloeker, Proc. Biol. Soc. Washington, vol. 51, p. 199, Dec. 23, 1938.

Type Locality.—Indian Harbor, 1½ miles south of Marina, Monterey County, Calif. Altitude, 50 feet. *Range.*—Narrow humid coastal belt of Pacific drainage slope of Santa Cruz and Santa Lucia Mountains, Calif., from Bear Creek, Black Mountain, Santa Clara County, south at least to Morro Bay, San Luis Obispo County. Vertical range, from near sea level to at least 4,600 feet.

Perognathus californicus bensoni von Bloeker*

1938. *Perognathus californicus bensoni* von Bloeker, Proc. Biol. Soc. Washington, vol. 51, p. 197, Dec. 23, 1938.

Type Locality.—Stonewall Creek, about 6.3 miles northeast of Soledad, Monterey County, Calif. Altitude, 1,300 feet. *Range.*—Gabilan–Diablo Range, Calif., from Herrero Canyon, Merced County, south through San Benito, eastern Monterey and western Fresno Counties onto Carrizo Plains, San Luis Obispo County. Vertical range, from 200 feet to at least 4,400 feet.

Perognathus californicus dispar Osgood†*

1900. *Perognathus californicus dispar* Osgood, North Amer. Fauna No. 18, p. 58, Sept. 20, 1900.

Type Locality.—Carpinteria, Santa Barbara County, Calif. *Range.*—From San Luis Obispo, southern San Luis Obispo County (Osgood, op. cit., p. 59), south through coastal slopes of Santa Barbara, Ventura, and Los Angeles Counties; also lower, western slopes of Sierra Nevada, from Dunlap, southern Fresno County, northwest to Auburn, western Placer County; zonal range, Upper Sonoran and Transition locally in Sierra Nevada; vertical range, from near sea level (near Carpinteria) up to 5,300 feet at Hume, Fresno County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 154, Sept. 26, 1933).

Perognathus californicus ochrus Osgood†*

1904. *Perognathus californicus ochrus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 128, June 9, 1904.

Type Locality.—Santiago Springs, 16 miles southwest of McKittrick, Kern County, Calif. *Range.*—Mountains and foothills around southern rim of San

Joaquin Valley; west to Cuyama Valley, northern Santa Barbara County; south to Cuddy Canyon, northern Ventura County; and east through Tehachapi and Walker Pass territory and into southern Sierra Nevada as far as Jordan Hot Springs, Tulare County, Calif.; zonal range, chiefly Upper Sonoran, locally Lower Sonoran; vertical range, from 600 feet (Wheeler Ridge, Kern County) up to 7,000 feet at Taylor Meadow, Tulare County (in part, Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 154, Sept. 26, 1933).

Perognathus californicus bernardinus Benson*

1930. *Perognathus californicus bernardinus* Benson, Univ. California Publ. Zool., vol. 32, No. 7, p. 449, Sept. 6, 1930.

Type Locality.—Two miles east of Strawberry Peak, San Bernardino Mountains, San Bernardino County, Calif. Altitude, 5,750 feet. *Range.*—San Bernardino and San Jacinto Mountains, in eastern Los Angeles, San Bernardino, and Riverside Counties, chiefly or altogether on their Pacific drainages; zonal range, Upper Sonoran and Transition; vertical range, from 2,500 feet (Devil Canyon, San Bernardino Mountains) up as high as 6,860 feet at Big Pine, Swartout Valley, Los Angeles County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 155, Sept. 26, 1933).

Perognathus californicus femoralis J. A. Allen*

1891. *Perognathus* (*Chaetodipus*) *femoralis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 281, June 30, 1891.

1913. *Perognathus californicus femoralis* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 335, Aug. 28, 1913.

Type Locality.—Dulzura, San Diego County, Calif. *Range.*—Mountains of San Diego district, altogether within San Diego County; from Mexican boundary north and east to Warner Pass and Banner; zonal range, Upper Sonoran, locally Transition; vertical range, from 700 feet, at Twin Oaks, up to 5,000 feet, north side of North Peak, Cuyamaca Mountains (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 155, Sept. 26, 1933).

Perognathus californicus mesopolius Elliot

1903. *Perognathus femoralis mesopolius* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April 1903), p. 168, May 7, 1903.

Type Locality.—Piñon, Sierra San Pedro Mártir, Baja California, México. Altitude, 5,000 feet. *Range.*—Sierra San Pedro Mártir.

spinatus—group

Perognathus spinatus spinatus Merriam†*

1889. *Perognathus spinatus* Merriam, North Amer. Fauna No. 1, p. 21, Oct. 25, 1889.

Type Locality.—Twenty-five miles below The Needles, Colorado River, San Bernardino County, Calif. *Range.*—Desert region of southeastern California and northeastern Baja California; in California, rough, hilly country along Colorado River Valley, from vicinity of The Needles, San Bernardino County, south to Pilot Knob, Imperial County; westernmost station, Horn Mine, east base Turtle Mountains, San Bernardino County; zonal range, Lower Sonoran; vertical range, from 200 feet (at base of Pilot Knob) up at least to 1,000 feet at Horn Mine (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 155, Sept. 26, 1933).

Perognathus spinatus rufescens Huey*

1930. *Perognathus spinatus rufescens* Huey, Trans. San Diego Soc. Nat. Hist., vol. 6, No. 17, p. 231, Dec. 24, 1930.

Type Locality.—Mouth of Palm Canyon, Borego Valley, northeastern San Diego County, Calif. *Range.*—Lower eastern slopes of mountains along west side of Colorado Desert, from near Mountain Spring, extreme eastern San Diego County, north to vicinity of Palm Springs, Riverside County; zonal range, Lower Sonoran; vertical range, from 450 feet (near Palm Springs) up to 3,000 feet near Dos Palmos Spring, Santa Rosa Mountains, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 155, Sept. 26, 1933).

Perognathus spinatus prietae Huey

1930. *Perognathus spinatus prietae* Huey, Trans. San Diego Soc. Nat. Hist., vol. 6, No. 17, p. 232, Dec. 24, 1930.

Type Locality.—Twenty-five miles north of Punta Prieta, lat. 29°24′ N., long. 114°24′ W., Baja California, México. *Range.*—Probably throughout suitable localities in central northern Baja California. Actually known from lat. 30° N. south to type locality.

Perognathus spinatus peninsulae Merriam†*

1894. *Perognathus spinatus peninsulae* Merriam, Proc. California Acad. Sci., ser. 2, vol. 4, p. 460, Sept. 25, 1894.

Type Locality.—San José del Cabo, Baja California, México. *Range.*—Cape region of Baja California.

Perognathus spinatus magdalenae Osgood†*

1907. *Perognathus spinatus magdalenae* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 21, Feb. 23, 1907.

Type Locality.—Magdalena Island, off west coast of Baja California, México. *Range.*—Magdalena Island.

Perognathus spinatus margaritae Merriam†*

1894. *Perognathus margaritae* Merriam, Proc. California Acad. Sci., ser. 2, vol. 4, p. 459, Sept. 25, 1894.

1930. *P[erognathus] s[pinatus] margaritae* Benson, Univ. California Publ. Zool., vol. 32, No. 7, p. 452, Sept. 6, 1930.

Type Locality.—Santa Margarita Island, off west coast of Baja California, México. *Range.*—Santa Margarita Island.

Perognathus spinatus lambi Benson

1930. *Perognathus spinatus lambi* Benson, Univ. California Publ. Zool., vol. 32, No. 7, p. 452, Sept. 6, 1930.

Type Locality.—San Gabriel, Espíritu Santo Island, Gulf of California, Baja California, México. *Range.*—Espíritu Santo Island.

Perognathus spinatus latijugularis Burt

1932. *Perognathus spinatus latijugularis* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 168, Oct. 31, 1932.

Type Locality.—San Francisco Island, lat. 24°50′ N., long. 110°34′ W., Gulf of California, Baja California, México. *Range.*—San Francisco Island.

Perognathus spinatus bryanti Merriam*

1894. *Perognathus bryanti* Merriam, Proc. California Acad. Sci., ser. 2, vol. 4, p. 458, Sept. 25, 1894.

1932. *Perognathus spinatus bryanti* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 167, Oct. 31, 1932.

Type Locality.—San José Island, Gulf of California, Baja California, México. *Range.*—San José Island.

Perognathus spinatus seorsus Burt

1932. *Perognathus spinatus seorsus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 167, Oct. 31, 1932.

Type Locality.—Danzante Island, lat. 25°47′ N., long. 111°11′ W., Gulf of California, Baja California, México. *Range.*—Danzante Island.

Perognathus spinatus occultus Nelson†*

1912. *Perognathus spinatus nelsoni* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 122, June 14, 1912. (Not of Merriam, 1894.)

1912. *Perognathus spinatus occultus* Nelson, Proc. Biol. Soc. Washington, vol. 25, p. 116, June 29, 1912. (Substitute for *nelsoni* Townsend.)

Type Locality.—Carmen Island, Gulf of California, México. *Range.*—Carmen Island.

Perognathus spinatus pullus Burt

1932. *Perognathus spinatus pullus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 166, Oct. 31, 1932.

Type Locality.—Coronados Island, lat 26°06′ N., long. 111°18′ W., Gulf of California, Baja California, México. *Range.*—Coronados Island.

Perognathus spinatus marcosensis Burt

1932. *Perognathus spinatus marcosensis* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 166, Oct. 31, 1932.

Type Locality.—San Marcos Island, lat. 27°13′ N., long. 112°05′ W., Gulf of California, Baja California, México. *Range.*—San Marcos Island.

Perognathus spinatus guardiae Burt

1932. *Perognathus spinatus guardiae* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 165, Oct. 31, 1932.

Type Locality.—Puerto Refugio, north end of Ángel de la Guarda Island, Gulf of California, Baja California, México. Altitude, 30 feet. *Range.*—Ángel de la Guarda Island.

Perognathus spinatus evermanni Nelson and Goldman

1929. *Perognathus evermanni* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 42, p. 111, Mar. 25, 1929.

1932. *Perognathus spinatus evermanni* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 165, Oct. 31, 1932.

Type Locality.—Mejía Island, near north end of Ángel de la Guarda Island, Gulf of California, Baja California, México. *Range.*—Mejía Island.

Subfamily DIPODOMYINAE

Genus DIPODOMYS [99] Gray (kangaroo-rats)

1841. *Dipodomys* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 7, p. 521, August 1841. (Type, *Dipodomys phillipsii* Gray.)

1867. *Perodipus* Fitzinger, Sitzb. Akad. Wiss. Wien, Math.-Nat., vol. 56, Abth. 1, p. 126. (Type, *Dipodomys agilis* Gambel. For status, see Grinnell, Proc. Biol. Soc. Washington, vol. 32, p. 203, Dec. 31, 1919.)

1890. *Dipodops* Merriam, North Amer. Fauna No. 3, p. 71, Sept. 11, 1890. (Type, *Dipodomys agilis* Gambel.)

heermanni—group

Dipodomys heermanni heermanni Le Conte*

1853. *D[ipodomys] heermanni* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 224.

1894. *Perodipus streatori* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 113, June 21, 1894. (Carbondale, Amador County, Calif.)

1921. *Dipodomys heermanni heermanni* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Sierra Nevada, Calif.; more exactly, vicinity of Calaveras River, in foothill district, Calaveras County (see Grinnell, Univ. California Publ. Zool., vol. 24, No. 1, p. 47, June 17, 1922). *Range.*—Lower west slope of central Sierra Nevada; recorded from Carbondale, Amador County, south to Coulterville, Mariposa County; vertical range, 500 to 3,200 feet; zonal range, Upper Sonoran, lower edge of Transition locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 157, Sept. 26, 1933).

Dipodomys heermanni californicus Merriam†*

1890. *Dipodomys californicus* Merriam, North Amer. Fauna No. 4, p. 49, Oct. 8, 1890.

1899. *Dipodomys californicus pallidulus* Bangs, Proc. New England Zool. Club, vol. 1, p. 65, July 31, 1899. (Sites, Colusa County, Calif.)

1916. *Dipodomys californicus trinitatis* L. Kellogg, Univ. California Publ. Zool., vol. 12, No. 13, p. 366, Jan. 27, 1916. (Helena, Trinity County, Calif. Altitude, 1,405 feet.)

1921. *Dipodomys heermani californicus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Ukiah [more exactly, the west edge of main road running south from Ukiah and about a mile south of the then center of town], Mendocino County, Calif. *Range.*—Northwestern California, chiefly east of humid coastal belt and altogether west of lower Sacramento River; south to Nicasio, Marin County, and Vacaville, Solano County; north to Hornbrook, Siskiyou County;

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[99] Groups arranged by Davis, Journ. Mamm., vol. 23, No. 3, p. 329, Aug. 14, 1942. See also Grinnell, Journ. Mamm. vol. 2, No. 2, pp. 94–97, May 2, 1921; and Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 496, Dec. 27, 1949. Subspecies reviewed by Grinnell, Univ. California Publ. Zool. vol. 24, No. 7, pp. 1–124, June 17, 1922, for California; and by Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, pp. 1–39, June 30, 1945, for Utah.

and east at north to east side of Tule Lake, Modoc County, and Petes Valley, Lassen County; vertical range, 200 to 4,500 feet; zonal range, Upper Sonoran and lower Transition (Grinnell, Univ. California Publ. Zool., vol 40, No. 2, p. 156, Sept. 26, 1933); and north into southern Oregon in Klamath Valley (V. Bailey, North Amer. Fauna No. 55 (June), p. 240, Aug. 29, 1936).

Dipodomys heermanni gabrielsoni Goldman†*

1925. *Dipodomys heermanni gabrielsoni* Goldman, Proc. Biol. Soc. Washington, vol. 38, p. 33, Mar. 12, 1925. (Regarded as identical with *californicus* by Grinnell and Linsdale, Univ. California Publ. Zool., vol. 30, No. 17, pp. 456–458, June 15, 1929.)

Type Locality.—Brownsboro, Jackson County, Oreg. Altitude, below 4,000 feet. *Range.*—Vicinity of Brownsboro, some 15 miles northeast of Medford, Oreg., but tracks and trails may be seen in open charparal of Upper Sonoran area of Rogue River Valley from Grants Pass to Ashland (V. Bailey, North Amer. Fauna No. 55 (June), p. 241, Aug. 29, 1936).

Dipodomys heermanni saxatilis Grinnell and Linsdale*

1929. *Dipodomys heermanni saxatilis* Grinnell and Linsdale, Univ. California Publ. Zool., vol. 30, No. 17, p. 453, June 15, 1929.

Type Locality.—Mesa near Dale's, north side of Paine's Creek, Tehama County, Calif. Altitude, 700 feet. *Range.*—Eastern side of Sacramento Valley, on rising ground, from a little south of Battle Creek, Tehama County, south nearly to South Fork of American River, in El Dorado County; vertical range, 300 to 1,200 feet; zonal range, Lower and Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 156, Sept. 26, 1933).

Dipodomys heermanni eximius Grinnell*

1919. *Dipodomys californicus eximius* Grinnell, Proc. Biol. Soc. Washington, vol. 32, p. 205, Dec. 31, 1919.

1921. *Dipodomys heermanni eximius* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Marysville Buttes, 3 miles northwest of Sutter, Sutter County, Calif. Altitude, 300 feet. *Range.*—Slopes of Marysville Buttes, in center of Sacramento Valley; vertical range, 300 feet to probably well up toward summits of the Buttes; zonal range, chiefly Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 156, Sept. 26, 1933).

Dipodomys heermanni tularensis (Merriam)†*

1904. *Perodipus agilis tularensis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 143, July 14, 1904.

1921. *Dipodomys heermanni tularensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Alila, now Earlimart, Tulare County, Calif. *Range.*—Chiefly floor of San Joaquin Valley; extends north on eastern side of this valley to vicinity of Raymond, Madera County; on western side to near Tracy, San Joaquin County; southeastward to vicinity of Bakersfield and Buena Vista Lake, Kern County; vertical range, 120 to 3,000 feet; zonal range, mostly Lower Sonoran, but extends into Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 157, Sept. 26, 1933).

Dipodomys heermanni dixoni (Grinnell)*

1919. *Perodipus dixoni* Grinnell, Univ. California Publ. Zool., vol. 21, No. 2, p. 45, Mar. 29, 1919.

1921. *Dipodomys heermanni dixoni* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Delhi, near Merced River, Merced County, Calif. *Range.*—Floor of lower (northern) end of San Joaquin Valley on eastern side of San Joaquin River, in Stanislaus and Merced Counties; recorded from Delhi east to Merced Falls; vertical range, below 500 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 157, Sept. 26, 1933).

Dipodomys heermanni berkeleyensis Grinnell*

1919. *Dipodomys berkeleyensis* Grinnell, Proc. Biol. Soc. Washington, vol. 32, p. 204, Dec. 31, 1919.

1921. *Dipodomys heermanni berkeleyensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Top of hill at head of Dwight Way, Berkeley, Alameda County, Calif. *Range.*—Presumably the hilly territory lying east from San Francisco Bay to Mount Diablo (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 157, Sept. 26, 1933). Subsequently recorded at Mount Diablo, Contra Costa County, Calif. (Hooper, Journ. Mamm., vol. 17, No. 4, p. 418, Nov. 16, 1936).

Dipodomys heermanni goldmani (Merriam)†*

1904. *Perodipus goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 143, July 14, 1904.

1921. *Dipodomys heermanni goldmani* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Salinas, mouth of Salinas Valley, Monterey County, Calif. *Range.*—Lower (northern) end of Salinas Valley and adjacent smaller valleys and hill-slopes, from sand-dune area on Monterey Bay just south of Salinas River mouth, southeast to vicinity of Soledad; recorded east to Bear Valley, in vicinity of Cook Post Office, San Benito County, and thence north to San Jose, Santa Clara County; vertical range, sea level up to about 1,300 feet; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 158, Sept. 26, 1933).

Dipodomys heermanni jolonensis Grinnell*

1919. *Dipodomys jolonensis* Grinnell, Proc. Biol. Soc. Washington, vol. 32, p. 203, Dec. 31, 1919.

1921. *Dipodomys heermanni jolonensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Valley floor, 1 mile southwest of Jolon, Monterey County, Calif. *Range.*—Upper (southern) end of Salinas Valley and tributary valleys, from vicinity of King City and Peachtree, in Monterey County, south to Creston, in San Luis Obispo County; west to Jolon; vertical range, 400 to 1,500 feet; zonal range, chiefly Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 158, Sept. 26, 1933).

Dipodomys heermanni morroensis (Merriam)†*

1907. *Perodipus morroensis* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 78, July 22, 1907.

1921. *Dipodomys morroensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

1943. *Dipodomys heermanni morroensis* Boulware, Univ. California Publ. Zool., vol. 46, No. 7, p. 393, Sept. 16, 1943.

Type Locality.—Four miles south of Morro, San Luis Obispo County, Calif. *Range.*—Immediate vicinity of Morro Bay (south side only, so far as known), San Luis Obispo County, Calif.; vertical range, below 250 feet; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 158, Sept. 26, 1933).

Dipodomys heermanni swarthi (Grinnell)*

1919. *Perodipus swarthi* Grinnell, Univ. California Publ. Zool., vol. 21, No. 2, p. 44, Mar. 29, 1919.

1921. *Dipodomys heermanni swarthi* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Seven miles southeast of Simmler, Carrizo Plain, San Luis Obispo County, Calif. *Range.*—Carrizo and Cuyama plains, in southeastern San Luis Obispo County and extreme northern Santa Barbara County; also southwestern border of San Joaquin Valley, in vicinity of McKittrick and San Emigdio, Kern County; vertical range, 300 to 2,000 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 158, Sept. 26, 1933; see also Boulware, Univ. California Publ. Zool., vol. 46, No. 7, p. 394, Sept. 16, 1943).

Dipodomys heermanni arenae Boulware

1943. *Dipodomys heermanni arenae* Boulware, Univ. California Publ. Zool., vol. 46, No. 7, p. 392, Sept. 16, 1943.

Type Locality.—C. A. Davis ranch, 2 miles north-northwest of Lompoc, Santa Barbara County, Calif. Altitude, 400 feet. *Range.*—Pacific slope of San Luis Obispo and Santa Barbara Counties from Oceano southward to Santa Inez River and up Santa Inez River Valley at least as far as Buellton.

Dipodomys panamintinus panamintinus (Merriam)†*

1894. *Perodipus panamintinus* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 114, June 21, 1894.

1921. *Dipodomys panamintinus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Head of Willow Creek, Panamint Mountains, Inyo County, Calif. [On U. S. Geol. Surv. Ballarat Quadrangle, March 1913; this is probably at about 6,200 feet altitude, some 3 miles northeast of Jackass Spring, in Inyo County about 20 miles due east of Keeler. See Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 159, Sept. 26, 1933.] *Range.*—Higher parts of northern section of Panamint Mountains, Inyo County; area of habitat, about 6 by 8 miles, in vicinity of Jackass Spring; vertical range, 6,000 to 7,000 feet; zonal range, Upper Sonoran and lower edge of Transition (Grinnell, 1933, loc. cit.).

Dipodomys panamintinus leucogenys (Grinnell)*

1919. *Perodipus leucogenys* Grinnell, Univ. California Publ. Zool., vol. 21, No. 2, p. 46, Mar. 29, 1919.

1921. *Dipodomys leucogenys* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

1946. *Dipodomys panamintinus leucogenys* Hall, Mammals of Nevada, p. 407, July 1, 1946.

Type Locality.—Pellisier Ranch, 5 miles north of Benton Station, Mono County, Calif. Altitude, 5,600 feet. *Range.*—Territory lying immediately southeast of Mono Lake and in head of Owens Valley; recorded from Dry Creek, near Mono Lake, Mono County, east to Nevada line, and south along west side of Owens Valley as far as vicinity of Independence, Inyo County; vertical range, 3,900 to 7,300 feet; zonal range, Upper Sonoran and, at the north, Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 159, Sept. 26, 1933); Upper Sonoran along western border of Nevada from Pyramid Lake south to head of Owens Valley (Hall, loc. cit.).

Dipodomys panamintinus mohavensis (Grinnell)*

1918. *Perodipus mohavensis* Grinnell, Univ. California Publ. Zool., vol. 17, No. 14, p. 428, Apr. 25, 1918.

1921. *Dipodomys mohavensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

1946. *D[ipodomys] panamintinus mohavensis* Hall, Mammals of Nevada, p. 408, July 1, 1946.

Type Locality.—Half mile east of railway station at Warren, about 5 miles north of Mohave, Kern County, Calif. Altitude, 3,275 feet. *Range.*—Mohave Desert region; north into lower end of Owens Valley as far as vicinity of Lone Pine; south to Hesperia, San Bernardino County; east to Purdy, near New York Mountains, San Bernardino County; and west to Fairmont, northern Los Angeles County, and over Walker and Kelso Passes into Kern River Basin as far as Isabella, Kern County; vertical range, 2,500 to 5.500 feet; zonal range, upper Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 159, Sept. 26, 1933).

Dipodomys panamintinus argusensis Huey

1945. *Dipodomys mohavensis argusensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 10, p. 131, Mar. 9, 1945.

Type Locality.—Junction Ranch, Argus Mountains, Inyo County, Calif. Altitude, 5,725 feet. *Range.*—So far as known, region about Junction Ranch, in the Argus Mountains.

Dipodomys panamintinus caudatus Hall

1946. *Dipodomys panamintinus caudatus* Hall, Mammals of Nevada, p. 409, July 1, 1946.

Type Locality.—Providence Mountains, 6 miles south of Granite Well, San Bernardino County, Calif. Altitude, 3,800 feet. *Range.*—Providence Mountains region of northeastern San Bernardino County, Calif., and western Clark County, Nev.

Dipodomys stephensi (Merriam)†*

1907. *Perodipus stephensi* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 78, July 22, 1907.

1921. *Dipodomys stephensi* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—San Jacinto Valley, Riverside County, Calif.; more exactly, a little west of present town of Winchester, toward Menifee. *Range.*—San Jacinto Valley and vicinity, in western Riverside County and extreme southern San Bernardino County; recorded from Reche Canyon (4 miles southeast of Colton) southwest to Temescal, and east to near San Jacinto; vertical range, 1,100 to 1,600 feet; zonal range, chiefly Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 160, Sept. 26, 1933).

Dipodomys ingens (Merriam)†*

1904. *Perodipus ingens* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 141, July 14, 1904.

1921. *Dipodomys ingens* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 95, May 2, 1921.

Type Locality.—Painted Rock, 20 [= 12] miles southeast of Simmler, Carrizo Plain, San Luis Obispo County, Calif. *Range.*—Western margin of San Joaquin Valley, and, to southeastward, Carrizo Plain and Cuyama Valley; occurs from near mouth of Laguna Seca Creek, in western Merced County, southeast to near Buena Vista Lake, southern Kern County; southwest to south side of Cuyama Valley, in extreme northern Santa Barbara County; vertical range, 400 to 2,500 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 160, Sept. 26, 1933).

Dipodomys gravipes Huey*

1925. *Dipodomys gravipes* Huey, Proc. Biol. Soc. Washington, vol. 38, p. 83, May 26, 1925.

Type Locality.—Two miles west of Santo Domingo Mission, lat. 30°45′ N., long. 115°58′ W., or precisely, on cactus-covered slopes south of huge red cliff that marks entrance of Santo Domingo River Canyon from coastal plain, Baja California, México. *Range.*—So far as known, from vicinity of type locality south over llano and foothills east of San Quintin, a distance of about 20 miles, and north over Llano de Camalú to San Telmo River (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 255, Apr. 30, 1951).

phillipsii—group

Dipodomys phillipsii phillipsii Gray*

1841. *Dipodomys phillipii* [sic] Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 7, p. 522, August 1841.

1893. *Dipodomys phillipsi* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 91, July 18, 1893.

Type Locality.—Near Real del Monte, Valley of México, Hidalgo, México (See Nelson in Merriam, Proc. Biol. Soc. Washington, vol. 8, pp. 84–87, July 18, 1893). *Range.*—Highlands of México from Zacatecas south through Hidalgo (9 kilometers south of Pachuca), Tlaxcala (Huamantla), and plains of Puebla

(Cañada Morelos and Esperanza) to Valley of México and adjacent mountain slopes on the south, and eastward to Perote, Veracruz, México (Merriam, op. cit., p. 92; and Davis, Journ. Mamm., vol. 23, No. 3, p. 329, Aug. 14, 1942).

Dipodomys phillipsii oaxacae Hooper

1947. *Dipodomys phillipsii oaxacae* Hooper, Journ. Mamm., vol. 28, No. 1, p. 48, Feb. 17, 1947.

Type Locality.—Teotitlán, Oaxaca, México. Altitude, 950 meters. *Range.*—Known from type locality only, but probably ranges northward at low elevations in Puebla and adjoining States, and intergrading with highland *phillipsii* and *perotensis.*

Dipodomys phillipsii perotensis Merriam†*

1894. *Dipodomys perotensis* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 111, June 21, 1894.

1944. *Dipodomys phillipsii perotensis* Davis, Journ. Mamm., vol. 25, No. 4, p. 391, Dec. 12, 1944.

Type Locality.—Perote, Veracruz, México. *Range.*—Semidesert area of Veracruz (Perote and Guadalupe Victoria, 8,300 feet) west of Laguna Salada near Alchichica, 8,000 feet, and Chalchicomula, 10 kilometers west of San Andrés, 8,300 feet in Puebla, México (Davis, loc. cit.).

Dipodomys ornatus Merriam†*

1894. *Dipodomys ornatus* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 110, June 21, 1894.

Type Locality.—Berriozábal, Zacatecas, México.

Dipodomys spectabilis spectabilis Merriam†*

1890. *Dipodomys spectabilis* Merriam, North Amer. Fauna No. 4, p. 46, Oct. 8, 1890.

Type Locality.—Dos Cabezos, Cochise County, Ariz. *Range.*—Higher plateau region of southeastern Arizona (Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 466, Oct. 15, 1933), east through northern Chihuahua and southeastern New Mexico generally on barren mesa tops and foothill slopes of desert ranges to western edge of Río Grande Valley (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 249, Mar. 1, 1932).

Dipodomys spectabilis perblandus Goldman†*

1933. *Dipodomys spectabilis perblandus* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 466, Oct. 15, 1933.

Type Locality.—Calabasas, Santa Cruz County, Ariz. Altitude, about 3,500 feet. *Range.*—Western desert region of central-southern Arizona, from vicinity of Tucson west at least to Gunsight, and south into adjoining parts of Sonora, México. Recorded from Cerro Blanco, Noria, and 2 miles south of Sásabe, north-central Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 46, Feb. 15, 1938).

Dipodomys spectabilis clarencei Goldman†*

1933. *Dipodomys spectabilis clarencei* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 467, Oct. 15, 1933.

Type Locality.—Blanco, San Juan County, N. Mex. *Range.*—San Juan River Valley south to Gallup, McKinley County, in northwestern New Mexico, northeastern Arizona, and probably southeastern Utah and southwestern Colorado.

Dipodomys spectabilis baileyi Goldman†*

1923. *Dipodomys spectabilis baileyi* Goldman, Proc. Biol. Soc. Washington, vol. 36, p. 140, May 1, 1923.

Type Locality.—Forty miles northwest of Roswell, Chaves County, N. Mex. *Range.*—From Cabezon, northwestern New Mexico, south through Rio Grande Valley in open plains country below level of nut pines and junipers to northwestern Texas, to eastern border of Tularosa Basin near Jarilla, and Pecos River Valley from Santa Rosa, Guadalupe County, south to Carlsbad, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (Dec. 1931), p. 259, Mar. 1, 1932); eastward in northwestern Texas at least to Presidio, Reeves, and Crane Counties (V. Bailey, North Amer. Fauna No. 25, p. 147, Oct. 24, 1905).

Dipodomys spectabilis zygomaticus Goldman†*

1923. *Dipodomys spectabilis zygomaticus* Goldman, Proc. Biol. Soc. Washington, vol. 36, p. 140, May 1, 1923.

Type Locality.—Parral, southern Chihuahua, México. *Range.*—Known from type locality only.

Dipodomys spectabilis cratodon Merriam†*

1907. *Dipodomys spectabilis cratodon* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 75, July 22, 1907.

Type Locality.—Chicalote, Aguas Calientes, México. *Range.*—Central México in portions of Zacatecas, San Luis Potosí, and Aguas Calientes (Vorhies and Taylor, U. S. Dept. Agric. Dept. Bull. 1091, p. 7, Sept. 13, 1922).

Dipodomys nelsoni Merriam†*

1907. *Dipodomys nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 75, July 22, 1907.

Type Locality.—La Ventura, Coahuila, México. *Range.*—From Santa Rosalía, Chihuahua, to Jaral and La Ventura, Coahuila, and thence to Doctor Arroyo, Nuevo León, México.

elator—group

Dipodomys elator Merriam†*

1894. *Dipodomys elator* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 109, June 21, 1894.—Davis, Journ. Mamm., vol. 23, No. 3, pp. 328–329, Aug. 14, 1942.

Type Locality.—Henrietta, Clay County, Tex. *Range.*—Recorded near Henrietta and a point 10 miles to the southwest, Texas, and at Chattanooga, Comanche County, Okla. (V. Bailey, North Amer. Fauna No. 25, p. 148, Oct. 24, 1905); more recently recorded 15 miles south of Vernon, Wilbarger County, Tex. (Blair, Journ. Mamm., vol. 30, No. 2, p. 201, May 23, 1949).

merriami—group

Dipodomys merriami merriami Mearns*

1890. *Dipodomys merriami* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 290, Feb. 21, 1890.

1894. *Dipodomys merriami nevadensis* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 111, June 21, 1894. (Pyramid Lake, Washoe County, Nev. Regarded as identical with *merriami* by Hall, Mammals of Nevada, p. 424, July 1, 1946.)

1894. *Dipodomys merriami nitratus* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 112, June 21, 1894. (Keeler, east side of Owens Lake, Inyo County, Calif. Regarded as identical with *merriami* by Grinnell, Journ. Mamm., vol. 2, No. 2, p. 97, May 2, 1921.)

1904. *Dipodomys merriami mortivallis* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 250, Jan. 7, 1904. (Furnace Creek, Death Valley, Inyo County, Calif. Regarded as identical with *merriami* by Grinnell, Journ. Mamm., vol. 2, No. 2, p. 97, May 2, 1921.)

1907. *Dipodomys merriami kernensis* Merriam†, Proc. Biol. Soc. Washington, vol. 20, p. 77, July 22, 1907. (Onyx, west end of Walker Pass, Kern County, Calif. Regarded as identical with *merriami* by Grinnell, Journ. Mamm., vol. 2, No. 2, p. 97, May 2, 1921.)

1929. *Dipodomys merriami olivaceus* Swarth, Proc. California Acad. Sci., ser. 4, vol. 18, No. 12, p. 356, Apr. 26, 1929. (Fairbank, Cochise County, Ariz. Regarded as identical with *merriami* by Benson, Proc. Biol. Soc. Washington, vol. 47, p. 183, Oct. 2, 1934.)

Type Locality.—New River, north of Phoenix, Maricopa County, Ariz.

Range.—From Valverde and Ward Counties through extremely arid Lower Sonoran Zone of western Texas (V. Bailey, North Amer. Fauna No. 25, p. 149, Oct. 24, 1905) into southern New Mexico at least as far as Carlsbad in Pecos Valley, to Jarilla and Tularosa in Otero County, to Socorro in Rio Grande Valley, and to Deming and Red Rock in the southwest (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 263, Mar. 1, 1932); south over tableland of México east of Sierra Nevada through northern and eastern Chihuahua to southern Coahuila and central Nuevo León, México (Vorhies and Taylor, U. S. Dept. Agric. Dept. Bull. 1091, map, p. 4, Sept. 13, 1922); most of desert area of northern Sonora, México, except northwestern arm, south to San José de Guaymas (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 47, Feb. 15, 1938); Arizona south of Colorado River in area south and west of Mogollon Plateau (Benson, op. cit., p. 182), Washington County, west of Beaver Dam Mountains, in extreme southwestern Utah (Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 31, June 30, 1945); Lower Sonoran zone of southern Nevada north to Alamo, Lincoln County, and low western part of State in salt-desert area north to Quinn River Crossing, Humboldt County (Hall, loc. cit.); and Mohave Desert region of California from Nevada line and Colorado River west to Weldon, in valley of South Fork of Kern River, Kern County, and to 7 miles west of Mohave; north, in Owens Valley, to Independence, Inyo County; south to road towards Blythe, 53 miles east to Mecca, and, along Colorado River, to Blythe, in Riverside County; vertical range, 200 to 7,000 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 160, Sept. 26, 1933).

Dipodomys merriami ambiguus Merriam†*

1890. *Dipodomys ambiguus* Merriam, North Amer. Fauna No. 4, p. 42, Oct. 8, 1890. (Regarded as "merely an ecotype of [*merriami*] developed in response to edaphic conditions" by Davis, Journ. Mamm., vol. 22, No. 2, p. 194, May 13, 1941; and as a valid subspecies by Blair, Journ. Mamm., vol. 30, No. 4, p. 388, Nov. 17, 1949.)

1901. [*Dipodomys merriami*] *ambiguus* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 234, Mar. 6, 1901.

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Very local distribution along sandy bottom of Río Grande Valley from El Paso and Juárez south to Boquillas, Brewster County, in Great Bend country, Texas (V. Bailey, North Amer. Fauna No. 25, p. 150, Oct. 24, 1905).

Dipodomys merriami simiolus Rhoads*

1894. *Dipodomys simiolus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 45, 1893, p. 410, Jan. 27, 1894.

1894. *Dipodomys similis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 45, 1893, p. 411, Jan. 27, 1894. (Whitewater, Riverside County, Calif.)

1897. *Dipodomys merriami simiolus* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 720, July 30, 1897.

Type Locality.—Agua Caliente (now Palm Springs), Riverside County, Calif. *Range.*—A narrow fringe along international boundary in Colorado Desert district of Baja California from Jacumba Valley eastward to Colorado River (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 220, Apr. 30, 1951); and Colorado Desert region of southeastern California; recorded north from Mexican border to Cabezon, in San Gorgonio Pass, Riverside County; west as far as La Puerta and Vallecito, in eastern San Diego County; east to Colorado River north as far as vicinity of Palo Verde; vertical range, 180 to 3,500 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 161, Sept. 26, 1933). Recorded also from sandy areas of northwestern Sonora, México, from El Doctor, Sierra Pinacate (40 miles west of Sonoyta), and 2 miles east of Pitiquito (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 47, Feb. 15, 1938).

Dipodomys merriami parvus Rhoads*

1894. *Dipodomys parvus* Rhoads, Amer. Nat., vol. 28, p. 70, January 1894.

1901. [*Dipodomys merriami*] *parvus* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 234, Mar. 6, 1901.

Type Locality.—Reche Canyon, 4 miles southeast of Colton, San Bernardino County, Calif. (See Grinnell, Univ. California Publ. Zool., vol. 24, No. 1, p. 82, June 17, 1922.) *Range.*—San Bernardino and San Jacinto Valleys, in San Bernardino and Riverside Counties; northernmost recorded station, Cajon Wash; southernmost, Vallevista; vertical range, 1,000 to 1,800 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 161, Sept. 26, 1933); south at least to Santo Domingo, lat. 30°45′ N., long. 115°58′ W., northwestern Baja California, México (Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 5, p. 66, July 6, 1927).

Dipodomys merriami trinidadensis Huey

1941. *Dipodomys merriami trinidadensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 220, Apr. 30, 1951.

Type Locality.—Aguajito Spring, El Valle de la Trinidad, Baja California, México. *Range.*—El Valle de la Trinidad and more arid parts of El Valle de la San Rafael, at least to Sangre de Cristo along western base of Sierra Juárez.

Dipodomys merriami quintinensis Huey

1951. *Dipodomys merriami quintinensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 222, Apr. 30, 1951.

Type Locality.—Five miles east of San Quintín, Baja California, México. *Range.*—Coastal plain above San Quintín Bay, and as far north as vicinity of Santo Domingo, some 25 miles north of San Quintín.

Dipodomys merriami arenivagus Elliot*

1904. *Dipodomys merriami arenivagus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 249, Jan. 7, 1904.

Type Locality.—San Felipe, Baja California, México. *Range.*—Arid area east of Sierra San Pedro Mártir and Sierra Juárez from San Felipe northward almost to boundary, excepting region about Colorado River delta (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 221, Apr. 30, 1951).

Dipodomys merriami semipallidus Huey*

1927. *Dipodomys merriami semipallidus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 5, p. 65, July 6, 1927.

Type Locality.—Seven miles north of Santa Catarina, lat. 29°45′ N., long. 115°10′ W., western Baja California, México. *Range.*—From near El Rosario River Canyon on the west and southernmost foothills of Sierra San Pedro Mártir on the east, thence tapering southward to an apex on Pacific coast somewhere west of Punta Prieta (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 223, Apr. 30, 1951).

Dipodomys merriami platycephalus Merriam†*

1907. *Dipodomys platycephalus* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 76, July 22, 1907.

1927. *Dipodomys merriami platycephalus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 5, p. 66, July 6, 1927.

Type Locality.—Calmallí, Baja California, México. *Range.*—From San Francisquíto (lat. 29°48′ N.) diagonally southwestward to Santa Rosalía Bay on Pacific side and over great Vizcaíno Desert region (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 224, Apr. 30, 1951).

Dipodomys merriami annulus Huey

1951. *Dipodomys merriami annulus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 224, Apr. 30, 1951.

Type Locality.—Barril, lat. 28°20′ N., long. 112°50′ W., Gulf of California, Baja California, México. *Range.*—Gulf of California side of Peninsula over coastal plain bordering San Francisquito and Santa Teresa Bays and thence northward into nontypical population at Las Flores, near Los Angeles Bay.

Dipodomys merriami brunensis Huey*

1951. *Dipodomys merriami brunensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 225, Apr. 30, 1951.

Type Locality.—Llano de San Bruno, Baja California, México. *Range.*— El Valle de Yaqui about 8 or 10 miles northwest of Santa Rosalía, Llano de San Bruno south of Santa Rosalía, and the gradually rising region from south end of Concepción Bay to Canipolé, Baja California.

Dipodomys merriami melanurus Merriam†*

1893. *Dipodomys merriami melanurus* Merriam, Proc. California Acad. Sci., ser. 2, vol. 3, p. 345, June 5, 1893.

Type Locality.—San José del Cabo, Baja California, México. *Range.*—Southern base of higher foothills of Sierra Victoria from Cape San Lucas to San José del Cabo, thence northward up the very wide valley at least to Agua Caliente (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 226, Apr. 30, 1951).

Dipodomys merriami llanoensis Huey*

1951. *Dipodomys merriami llanoensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 226, Apr. 30, 1951.

Type Locality.—Buena Vista, lat. 24°50′ N., long. 111°50′ W., Magdalena Plain, Baja California, México. *Range.*—From San Jorge, on northern end of Magdalena Plain, south to area south of El Refugio, but ranges without doubt farther southward, at least to region of Arroyo Seco below Magdalena Bay.

Dipodomys merriami vulcani Benson*

1934. *Dipodomys merriami vulcani* Benson, Proc. Biol. Soc. Washington, vol. 47, p. 181, Oct. 2, 1934.

1936. *Dipodomys merriami frenatus* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 1, p. 1, Jan. 17, 1936. (Toquerville, Washington County, Utah; altitude, 3,200 feet. Regarded as identical with *vulcani* by Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, pp. 31–32, June 30,1945.)

Type Locality.—Lower end of Toroweap Valley, about ½ mile east of Vulcan's Throne, Mohave County, Ariz. *Range.*—From Vulcan's Throne north into southern Washington County, Utah, east of Beaver Dam Mountains (Durrant and Setzer, op. cit., p. 31).

Dipodomys merriami regillus Goldman†*

1937. *Dipodomys merriami regillus* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 75, June 22, 1937.

Type Locality.—Tule Well, Tule Desert between Cabeza Prieta Mountains and Tule Mountains, Yuma County, Ariz. Altitude, 1,000 feet. *Range.*—Low desert plains of southwestern Arizona, including lower part of Gila River Valley and adjoining parts of Sonora, from Colorado River east to Quitobaquito, Pima County, Ariz., and Sonoyta, Sonora, intergrading to east and north with *merriami.*

Dipodomys merriami mayensis Goldman†*

1928. *Dipodomys merriami mayensis* Goldman, Proc. Biol. Soc. Washington, vol. 41, p. 141, Oct. 15, 1928.

Type Locality.—Alamos, Sonora, México. *Range.*—Southern Sonora north to Río Yaqui (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 47, Feb. 15, 1938).

Dipodomys merriami mitchelli Mearns†*

1897. *Dipodomys mitchelli* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 719, July 30, 1897.

1938. *Dipodomys merriami mitchelli* Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 48, Feb. 15, 1938.

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Low flat sandy areas on Tiburón Island.

Dipodomys merriami atronasus Merriam†*

1894. *Dipodomys merriami atronasus* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 113, June 21, 1894.

Type Locality.—Hacienda La Parada, about 25 miles northwest of city of San Luis Potosí, San Luis Potosí, México.

Dipodomys nitratoides nitratoides Merriam†*

1894. *Dipodomys merriami nitratoides* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 112, June 21, 1894.

1921. *Dipodomys nitratoides nitratoides* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Tipton, San Joaquin Valley, Tulare County, Calif. *Range.*—Floor of southeastern side and end of (upper) San Joaquin Valley, from 15 miles south of Corcoran, Kings County, south to Caliente Wash, Kern County; west to north side of Buena Vista Lake, Calif.; vertical range, 230 to 600 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 161, Sept. 26, 1933).

Dipodomys nitratoides exilis Merriam†*

1894. *Dipodomys merriami exilis* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 113, June 21, 1894.

1921. *Dipodomys nitratoides exilis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Fresno [4 miles north of railroad station, along Southern Pacific right of way], San Joaquin Valley, Fresno County, Calif. *Range.*—Formerly known only from a small portion of east side of San Joaquin Valley north of Tulare Lake, in vicinity of Fresno (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 161, Sept. 26, 1933). Rediscovered south of Kerman, Fresno County (Culberson, Journ. Mamm., vol. 15, No. 2, p. 161, May 15, 1934). Vertical range, about 300 feet; zonal range, Lower Sonoran.

Dipodomys nitratoides brevinasus Grinnell*

1920. *Dipodomys merriami brevinasus* Grinnell, Journ. Mamm., vol. 1, No. 4, p. 179, Aug. 24, 1920.

1921. *Dipodomys nitratoides brevinasus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Hayes Station, near Bench Mark 503 [= 502 of U. S. Geol. Surv. Panoche quadrangle], 19 miles southwest of Mendota, near mouth of Panoche Creek canyon, Fresno County, Calif. *Range.*—Arid western side of San Joaquin Valley, from near mouth of Panoche Creek and near Mendota, in western Fresno County, south to near mouth of San Emigdio Creek, in southwestern Kern County, Calif.; vertical range, 175 to 600 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 162, Sept. 26, 1933).

Dipodomys insularis Merriam†*

1907. *Dipodomys insularis* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 77, July 22, 1907.

Type Locality.—San José Island, Gulf of California, Baja California, México. *Range.*—San José Island.

Dipodomys margaritae Merriam†*

1907. *Dipodomys margaritae* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 76, July 22, 1907.

Type Locality.—Santa Margarita Island, off west coast of southern Baja California, México. *Range.*—Santa Margarita Island.

ordii—group [1]

Dipodomys ordii ordii Woodhouse*

1853. *D[ipodomys] ordii* Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 6, 1852–1853, p. 224.

1884. *Dipodomys phillipsi ordii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 599, Nov. 29, 1884. (Part.)

Type Locality.—El Paso, El Paso County, Tex. *Range.*—Southeastern Arizona, southern New Mexico, western Texas, and north-central México. Marginal localities: In Arizona, 20 miles northeast of Calva, Oracle, and Calabasas; in Sonora, Nogales; in Chihuahua, Casas Grandes, Corralitos, and Santa Rosalía; in Texas, 16 miles east of Van Horn and 30 miles north of Van Horn; in New Mexico, 40 miles north of Roswell, 40 miles southeast of Corona, and Mangos Valley (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 530, Dec. 27, 1949).

Dipodomys ordii extractus Setzer

1949. *Dipodomys ordii extractus* Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 534, Dec. 27, 1949.

Type Locality.—One mile east of Samalayuca, Chihuahua, México. Altitude, 4,500 feet. *Range.*—Known from type locality only.

Dipodomys ordii obscurus (J. A. Allen)

1903. *Perodipus obscurus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 603, Nov. 12, 1903.

1921. *Dipodomys ordii obscurus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Río Sestín, northwestern Durango, México. *Range.*—Northwestern and northern Durango. Marginal localities: Rosario, Río Sestín, Mount San Gabriel, Río del Bocas, and Villa Ocampo (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 521, Dec. 27, 1949).

Dipodomys ordii idoneus Setzer

1949. *Dipodomys ordii idoneus* Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 564, Dec. 27, 1949.

Type Locality.—San Juan, 12 miles west of Lerdo, Durango, México. Altitude, 3,800 feet. *Range.*—Known from type locality only.

Dipodomys ordii palmeri (J. A. Allen)*

1881. *Dipodops ordii palmeri* J. A. Allen, Bull. Mus. Comp. Zool., vol. 8, No. 9, p. 187, March 1881.

1921. *Dipodomys ordii palmeri* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

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[1] Revised by Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, pp. 473–573, Dec. 27, 1949.

Type Locality.—City of San Luis Potosí, San Luis Potosí, México. *Range.*—Eastern Zacatecas, Aguascaliente, northern Jalisco, San Luis Potosí, Hidalgo, and probably Querétaro. Marginal localities: In Zacatecas, Cañitas and Berriozábal; in Aguascaliente, 1 mile north of Chicalote; in Jalisco, 9 miles north of Encarnación; in Guanajuato, Celaya; and in Hidalgo, Irolo (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23. p. 562, Dec. 27, 1949).

Dipodomys ordii durranti Setzer†*

1949. *Dipodomys ordii fuscus* Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 555, Dec. 27, 1949. (Preoccupied by *Dipodomys agilis fuscus* Boulware, 1943.)

1952. *Dipodomys ordii durranti* Setzer, Journ. Washington Acad. Sci., vol. 42, No. 12, p. 391, Dec. 17, 1952.

Type Locality.—Jaumave, Tamaulipas, México. *Range.*—Nuevo León, extreme northern Zacatecas, Tamaulipas, and northern San Luis Potosí, México. Marginal localities: In Coahuila, La Ventura; in Tamaulipas, Tula, Jaumave and Nuevo Laredo (Setzer, loc. cit.).

Dipodomys ordii parvabullatus Hall

1951. *Dipodomys ordii parvabullatus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 4, p. 38, Oct. 1, 1951.

Type Locality.—Island, 88 miles south and 10 miles west of Matamoros, Tamaulipas, México. *Range.*—Islands along coast of Tamaulipas.

Dipodomys ordii sennetti (J. A. Allen)*

1891. *Dipodops sennetti* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 226, Apr. 29, 1891.

1942. *Dipodomys ordii sennetti* Davis, Journ. Mamm., vol. 23, No. 3, p. 332, Aug. 14, 1942.

Type Locality.—Santa Rosa stage station, "85 miles southwest of Corpus Christi," Cameron County, Tex. (See V. Bailey, North Amer. Fauna No. 25, p. 146, Oct. 24, 1905.) *Range.*—Southern Texas, south of Corpus Christi. Marginal localities, all in Texas: Somerset, 8 miles northeast of Los Angeles, 8 miles east of Encinal, Santa Rosa, 28 miles east of Raymondville, and 2 miles south of Riviera (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 517, Dec. 27, 1949).

Dipodomys ordii largus Hall

1951. *Dipodomys ordii largus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 4, p. 40, Oct. 1, 1951.

Type Locality.—Mustang Island, 14 miles southwest of Port Aransas, Aransas County, Tex. *Range.*—Known from Mustang Island only.

Dipodomys ordii compactus True†*

1889. *Dipodomys compactus* True, Proc. U. S. Nat. Mus., vol. 11 (1888), p. 160, Jan. 5, 1889.

1942. *Dipodomys ordii compactus* Davis, Journ. Mamm., vol. 23, No. 3, p. 332, Aug. 14, 1942.

Type Locality.—Padre Island, Cameron County, Tex. *Range.*—Known from type locality only.

Dipodomys ordii attenuatus Bryant*

1939. *Dipodomys ordii attenuatus* Bryant, Occ. Pap. Louisiana State Univ. No. 5, p. 65, Nov. 10, 1939.

Type Locality.—Mouth of Santa Helena Canyon, Big Bend of Rio Grande, Brewster County, Tex. Altitude, 2,146 feet. *Range.*—Big Bend region of Brewster County.

Dipodomys ordii medius Setzer†*

1949. *Dipodomys ordii medius* Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 519, Dec. 27, 1949.

Type Locality.—Santa Rosa, Guadalupe County, N. Mex. *Range.*—From north-central New Mexico, southeastward to west-central Texas. Marginal localities: In New Mexico, 15 miles north of Ojo Caliente, Gallina Mountains, Deer Creek, and San Pedro; in Texas, 20 miles north of Monahans, Colorado, 7 miles east of Post, and 6 miles southwest of Muleshoe.

Dipodomys ordii oklahomae Trowbridge and Whitaker†*

1940. *Dipodomys oklahomae* Trowbridge and Whitaker, Journ. Mamm., vol. 21, No. 3, p. 343, Aug. 13, 1940.

1942. *Dipodomys ordii oklahomae* Davis, Journ. Mamm., vol. 23, No. 3, p. 332, Aug. 14, 1942.

Type Locality.—North bank of South Canadian River, 2¼ miles south of Norman, Cleveland County, Okla. *Range.*—Known only from South Canadian River Valley west of Minco, Canadian County; and east to Lexington, Cleveland County, Oklahoma (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 514, Dec. 27, 1949).

Dipodomys ordii richardsoni (J. A. Allen)*

1891. *Dipodops richardsoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 277, June 30, 1891.

1921. *Dipodomys ordii richardsoni* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—On one of sources of Beaver [=North Canadian] River, probably Harper County, Oklahoma (see Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 116, July 1939). *Range.*—Southwestern Nebraska, eastern Colorado, northeastern New Mexico, Panhandle of Texas, and western parts of Oklahoma and Kansas. Marginal localities: In Nebraska, Bladen and Haigler; in Colorado, Olney; in New Mexico, Clayton; in Texas, 6 miles south and 1 mile west of Quitaque, and Vernon; in Oklahoma, 3 miles south of Cleo Springs; in Kansas, Medora (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 511, Dec. 27, 1949).

Dipodomys ordii luteolus (Goldman)†*

1917. *Perodipus ordii luteolus* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 112, May 23, 1917.

1921. *Dipodomys ordii luteolus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Casper, Natrona County, Wyo. *Range.*—Southeastern Wyoming, northeastern Colorado, northwestern half of Nebraska, and southwestern South Dakota. Marginal localities: In Wyoming, Casper, Sun, and Fort Steele; in Colorado, Loveland, Hugo, and Akron; in Nebraska, Birdwood Creek, Neligh, and Valentine; in South Dakota, Batesland and Buffalo Gap (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 533, Dec. 27, 1949).

Dipodomys ordii terrosus Hoffmeister*

1942. *Dipodomys ordii terrosus* Hoffmeister, Proc. Biol. Soc. Washington, vol. 55, p. 165, Dec. 31, 1942.

Type Locality.—Yellowstone River, 5 miles west of Forsyth, Rosebud County, Mont. Altitude, 2,750 feet. *Range.*—Extreme southwestern Saskatchewan and southeastern Alberta, eastern half of Montana, northern Wyoming, and probably extreme western North Dakota. Marginal localities: In Saskatchewan, 50 miles west of Swift Current; in Alberta, "near Medicine Hat"; in Wyoming, Sheep Creek and 23 miles southwest of Newcastle; in Montana, Medicine Rocks (14 miles northeast of Ekalaka) and Glendive (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 523, Dec. 27, 1949).

Dipodomys ordii priscus Hoffmeister*

1942. *Dipodomys ordii priscus* Hoffmeister, Proc. Biol. Soc. Washington, vol. 55, p. 167, Dec. 31, 1942.

Type Locality.—Kinney Ranch, 21 miles south of Bitter Creek, Sweetwater County, Wyo. Altitude, 7,100 feet. *Range.*—Southwestern Wyoming, extreme northeastern Utah and northwestern Colorado. Marginal localities: In Wyoming, 7 miles north of Fort Washakie and 10 miles southwest of Granger; in Colorado, Lay and Snake River south of Sunny Peak (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 547, Dec. 27, 1949).

Dipodomys ordii evexus Goldman†*

1933. *Dipodomys ordii evexus* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 468, Oct. 15, 1933.

Type Locality.—Salida, Chaffee County, Colo. Altitude, 7,000 feet. *Range.*—Upper Arkansas River Valley of south-central Colorado, from Salida to Pueblo (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 518, Dec. 27, 1949).

Dipodomys ordii montanus Baird†*

1855. *Dipodomys montanus* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 334, April 1855.

1921. *Dipodomys ordii montanus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Old Fort Massachusetts (now Fort Garland), Costilla County, Colo. (See Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 140, July 14, 1904). *Range.*—San Luis Valley of south-central Colorado and north-central New Mexico. Marginal localities: In Colorado, 22 miles east of Mosca, Saguache, Alamosa and Antonito; in New Mexico, 4 miles southwest of Cimmaron (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 538, Dec. 27, 1949).

Dipodomys ordii nexilis Goldman†*

1933. *Dipodomys ordii nexilis* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 470, Oct. 15, 1933.

Type Locality.—Five miles west of Naturita, Montrose County, Colo. *Range.*—West-central Colorado, southwest into San Juan County, Utah, north of San Juan River; northwest into Grand County, Utah, to Colorado River; and westward probably as far as Colorado River. Marginal localities: In Utah, Cisco, 18 miles northeast of Moab, and Blanding; in Colorado, 5 miles west of Naturita and Coventry (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 559, Dec. 27, 1949).

Dipodomys ordii longipes (Merriam)†*

1890. *Dipodops longipes* Merriam, North Amer. Fauna No. 3, p. 72, Sept. 11, 1890.

1921. *Dipodomys ordii longipes* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

1933. *Dipodomys ordii cleomophila* Goldman†, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 469, Oct. 15, 1933. (Five miles northeast of Winona, Coconino County, Ariz. Altitude, 6, 200 feet.)

Type Locality.—Foot of Echo Cliffs, Painted Desert, Coconino County, Ariz. *Range.*—Southeastern Utah, northeastern Arizona to immediately south of Little Colorado River, northwestern New Mexico and extreme southwestern Colorado. Marginal localities: In Arizona, 20 miles northeast of Lees Ferry, foot of Echo Cliffs in Painted Desert, 5 miles northeast of Winona, Winslow, and Holbrook; in New Mexico, 10 miles southwest of Quemado, Riley, Laguna, Chama Canyon, and Shiprock (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 556, Dec. 27, 1949).

Dipodomys ordii chapmani Mearns*

1890. *Dipodomys chapmani* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 291, Feb. 21, 1890.

1921. *Dipodomys ordii chapmani* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Fort Verde, Yavapai County, Ariz. *Range.*—Central Arizona from Grand Canyon of Colorado River, southeastward to, and probably beyond, Fort Verde. Marginal localities, all in Arizona: Lower end Prospect Valley, Kirkland, Prescott, Camp Verde, and Bill Williams Mountain (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 536, Dec. 27, 1949).

Dipodomys ordii cupidineus Goldman†*

1924. *Dipodomys ordii cupidineus* Goldman, Journ. Washington Acad. Sci., vol. 14, No. 15, p. 372, Sept. 19, 1924.

Type Locality.—Kanab Wash, at southern boundary of Kaibab Indian Reservation, Mohave County, Ariz. *Range.*—Northeastern Arizona and south-central Utah. Marginal localities: In Utah, Escalante, near Paria, and south of Virgin; in Arizona, 6 miles north of Wolf Hole, 20 miles south of Wolf Hole, 5 miles south of Trumbull Spring and 10 miles south of Jacobs Pools in Houserock Valley (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 561, Dec. 27, 1949).

Dipodomys ordii sanrafaeli Durrant and Setzer*

1945. *Dipodomys ordii sanrafaeli* Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 26, June 30, 1945.

Type Locality.—One and one half miles north of Price, Carbon County, Utah. Altitude, 5,567 feet. *Range.*—East-central Utah, east into west-central Colorado. Marginal localities: In Utah, 12 miles east of Price, 1½ miles north of Price, Notom, King's Ranch, 12 miles southwest of Green River, and 16 miles northwest of Moab; in Colorado, State Line and Grand Junction (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 526, Dec. 27, 1949).

Dipodomys ordii uintensis Durrant and Setzer

1945. *Dipodomys ordii uintensis* Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 27, June 30, 1945.

Type Locality.—Red Creek, 2 miles north of Fruitland, Duchesne County, Utah. Altitude, 6,700 feet. *Range.*—Uinta basin of White, Green, and Duchesne River drainage in northeastern Utah. Marginal localities, all in Utah: 2 miles north of Fruitland, 10 miles south of Ouray, and Vernal (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 525, Dec. 27, 1949).

Dipodomys ordii fremonti Durrant and Setzer

1945. *Dipodomys ordii fremonti* Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 21, June 30, 1945.

Type Locality.—Torrey, Wayne County, Utah. Altitude, 7,000 feet. *Range.*—Known from type locality only.

Dipodomys ordii panguitchensis Hardy

1942. *Dipodomys ordii panguitchensis* Hardy, Proc. Biol. Soc. Washington, vol. 55, p. 90, June 25, 1942.

Type Locality.—One mile south of Panguitch, Garfield County, Utah. Altitude, 6,666 feet. *Range.*—Known from type locality only.

Dipodomys ordii cinderensis Hardy*

1944. *Dipodomys ordii cinderensis* Hardy, Proc. Biol. Soc. Washington, vol. 57, p. 53, Oct. 31, 1944.

Type Locality.—At about 4,000 feet on sandy soil immediately north of the northern of two large cinder cones in Diamond Valley, 10 miles north of St. George, Washington County, Utah. *Range.*—Diamond Valley, Washington County, Utah, north through Mountain Meadows, east as far as Cedar City, Iron County, Utah, north through Escalante Desert to Lund, Iron County, and west almost to Utah–Nevada boundary. Marginal localities, all in Utah: 11 miles southeast of Lund, north end Mountain Meadows, Diamond Valley, 10 miles west of Cedar City, 4½ miles northwest of Summit, and 6 miles west of Parowan (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 540, Dec. 27, 1949).

Dipodomys ordii celeripes Durrant and Hall

1939. *Dipodomys ordii celeripes* Durrant and Hall, Mammalia, Paris, vol. 3, No. 1, p. 10, March 1939.

Type Locality.—Trout Creek, Juab County, Utah. Altitude, 4,600 feet. *Range.*—Eastern Nevada, western and west-central Utah, east to eastern Sevier County, Utah. Marginal localities: In Nevada, Tecoma, Cobre, and 8 miles southeast of Mount Moriah; in Utah, east side of Clear Lake, U. B. (Yuba) Dam, 10 miles southwest of Nephi, and Trout Creek (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 549, Dec. 27, 1949).

Dipodomys ordii pallidus Durrant and Setzer

1945. *Dipodomys ordii pallidus* Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 24, June 30, 1945.

Type Locality.—Old Lincoln Highway, 18 miles southwest of Orr's Ranch in Skull Valley, Tooele County, Utah. Altitude, 4,400 feet. *Range.*—Low valleys of west-central Utah in Tooele, Juab, and Millard Counties. Marginal localities, all in Utah: 18 miles southwest of Orr's Ranch, 7 miles south of Fish Springs, Hinckley, and Lynndyl (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 558, Dec. 27, 1949).

Dipodomys ordii utahensis (Merriam)†*

1904. *Perodipus montanus utahensis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 143, July 14, 1904. (Regarded as not distinguishable from *columbianus* by Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 4, Apr. 10, 1931.)

1921. *Dipodomys ordii utahensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Ogden, Weber County, Utah. *Range.*—Between Great Salt Lake and Wasatch Mountains from extreme northern Utah, south to northern Sevier County, Utah. Marginal localities, all in Utah: Promontory Point, Ogden, St. John, Cedar Valley, Nephi, Aurora, Spring City, Provo, and 4 miles north of Draper (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 543, Dec. 27, 1949).

Dipodomys ordii cineraceus Goldman†*

1939. *Dipodomys ordii cineraceus* Goldman, Journ. Mamm., vol. 20, No. 3, p. 352, Aug. 14, 1939.

Type Locality.—Dolphin Island, Great Salt Lake, Box Elder County, Utah. Altitude, 4,250 feet. *Range.*—Known from Dolphin Island only.

Dipodomys ordii marshalli Goldman†*

1937. *Dipodomys ordii marshalli* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 223, Dec. 28, 1937.

Type Locality.—Bird Island, Great Salt Lake, Tooele County, Utah. Altitude, about 4,300 feet. *Range.*—Bird, Carrington, Badger, and Stansbury Islands, in Great Salt Lake; around western edge of Great Salt Lake north to Kelton, Box Elder County, and around southern and southeastern edge of lake to mouth of Jordan River, Utah. Marginal localities: In Utah, Kelton, 2 miles west of Grantsville, 14 miles west of Salt Lake City, and Bird Island in Great Salt Lake (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 551, Dec. 27, 1949).

Dipodomys ordii fetosus Durrant and Hall

1939. *Dipodomys ordii fetosus* Durrant and Hall, Mammalia, Paris, vol. 3, No. 1, p. 14, March 1939.

Type Locality.—Two miles north of Panaca, Lincoln County, Nev. Altitude, 4,800 feet. *Range.*—Southeastern Nevada and western Beaver and Millard Counties, Utah. Marginal localities: In Nevada, 2 miles southeast of Pioche, 15 miles west-southwest of Sunnyside, 16½ miles west-southwest of Sunnyside, 14 miles north-northeast of Sharp, 15 miles south of Groom Baldy, 10 miles east of Crystal Spring, and Panaca; in Utah, Pine Valley, 50 miles west of Milford, and 5 miles south of Garrison (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, 541, Dec. 27, 1949).

Dipodomys ordii monoensis (Grinnell)*

1919. *Perodipus monoensis* Grinnell, Univ. California Publ. Zool., vol. 21, No. 2, p. 46, Mar. 29, 1919.

1921. *Dipodomys ordii monoensis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Pellisier Ranch, 5 miles north of Benton Station, Mono County, Calif. Altitude, 5,600 feet. *Range.*—Northeastern Inyo and Mono Counties, Calif., north to southern Pershing County and east to eastern Nye County, Nev. Marginal localities: In California, 5 miles north of Benton Station and Deep Spring Valley; in Nevada, Arlemont, 2 miles northwest of Palmetto, 1 mile north of Beatty, 5 miles west of White Rock Spring, Big Creek at Quinn Canyon Mountains, 2½ miles south of Lock's Ranch, 2 miles south of Millett Post Office, 13½ miles northwest of Goldfield, Fingerrock Wash, Eastgate, ½ mile northeast of Toulon, 21 miles west and 2 miles north of Lovelock, ½ mile south of Pyramid Lake, West Walker River in Smith's Valley, and 10 miles south of Yerington (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 528, Dec. 27, 1949).

Dipodomys ordii inaquosus Hall*

1941. *Dipodomys ordii inaquosus* Hall, Proc. Biol. Soc. Washington, vol. 54, p. 58, May 20, 1941.

Type Locality.—Eleven miles east and 1 mile north of Jungo, Humboldt County, Nev. Altitude, 4,200 feet. *Range.*—Southeastern Humboldt and northern Lander Counties, Nev. Marginal localities, all in Nevada: 7 miles north of Winnemucca, 8 miles east and 1 mile north of Jungo, 15 miles southwest of Winnemucca, 23 miles northwest of Battle Mountain, Izenhood, and 18 miles northeast of Iron Point (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 552, Dec. 27, 1949).

Dipodomys ordii columbianus (Merriam)†*

1894. *Perodipus ordi columbianus* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 115, June 21, 1894.

1921. *Dipodomys ordii columbianus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Umatilla, at mouth of Umatilla River, Plains of Columbia, Umatilla County, Oreg. *Range.*—Southeastern Washington, eastern Oregon, southwestern Idaho, northwestern and northern and most of northeastern Nevada. Marginal localities: In Washington, 2 miles southwest of Paterson, 4 miles east of Burbank, and Wallula; in Oregon, 7 miles east of Madras, 2 miles east of Prineville, and Guano Valley; in California, Eagleville, Red Rock, Observation Peak, 5 miles east of Litchfield, Honey Lake, and Vinton; in Nevada, 3½ miles east of Flanigan, 6 miles south of Pahrum Peak, 2½ miles east and 11 miles north of Gerlach, 2 miles southwest of Quinn River Crossing, 1 mile southeast of Tuscarora, 5 miles north of Beowawe, ½ mile south of Beowawe, 2½ miles northeast of Smiths Creek Ranch, Bells Ranch, 5 miles west of Austin, 8 miles west of Eureka, 4 miles south of Shoshone, 5 miles southeast of Greens Ranch, and 22 miles north of Deeth; in Idaho, 8 miles west of Rodgerson, 6 miles southwest of American Falls, 4 miles northeast of American Falls, 5 miles northwest of

Michaud, Arco, Hammett, and Payette; in Oregon, Umatilla (Setzer, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 23, p. 544, Dec. 27, 1949).

Dipodomys agilis agilis Gambel*

1848. *Dipodomys agilis* Gambel, Proc. Acad. Nat. Sci. Philadelphia, vol. 4 (1848–1849), p. 77.

1853. *D[ipodomys] wagneri* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 6, p. 224, January 1853. (See Grinnell, Univ. California Publ. Zool., vol. 24, No. 1, pp. 90–91, June 17, 1922.)

1886. *D[ipodomys] agilis* True, Proc. U. S. Nat. Mus., vol. 9, p. 410, Oct. 30, 1886.

Type Locality.—Los Angeles, Los Angeles County, Calif. *Range.*—Chiefly Pacific slope of southern California, from near San Jose Creek in southeastern Santa Barbara County (Boulware, Univ. California Publ. Zool., vol. 46, No. 7, p. 395, Sept. 16, 1943) southeast through Ventura, Los Angeles and Orange Counties into western San Bernardino and Riverside Counties (to include San Bernardino and San Jacinto mountains); easternmost record-station, Kenworthy, in San Jacinto Mountains; vertical range, close to sea level up to 7,500 feet; zonal range, chiefly Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 163, Sept. 26, 1933).

Dipodomys agilis fuscus Boulware

1943. *Dipodomys agilis fuscus* Boulware, Univ. California Publ. Zool., vol. 46, No. 7, p. 393, Sept. 16, 1943.

Type Locality.—Two and one-half miles north of La Purisima Mission, Santa Barbara County, Calif. Altitude, 600 feet. *Range.*—Known only from vicinity of Lompoc, Santa Barbara County, Calif.

Dipodomys agilis perplexus (Merriam)†*

1907. *Perodipus perplexus* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 79, July 22, 1907.

1921. *Dipodomys agilis perplexus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Walker Basin, Kern County, Calif. Altitude, 3,400 feet. *Range.*—Mountain ranges and included valleys around southern end of San Joaquin Valley; recorded from Trout Creek (toward head of South Fork of Kern River), Tulare County, southwest through Tehachapi and Tejon country to head of Piru Creek, Ventura County; vertical range, 2,400 to 6,500 feet; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 163, Sept. 26, 1933; see also, Boulware, Univ. California Publ. Zool., vol. 46, No. 7, p. 395, Sept. 16, 1943).

Dipodomys agilis cabezonae (Merriam)†*

1904. *Perodipus cabezonae* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 144, July 14, 1904.

1921. *Dipodomys agilis simulans* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Cabezon, San Gorgonio Pass, Riverside County, Calif. *Range.*—Desert slopes of coastal mountains of southern California, from Cabezon and east slope of San Jacinto Mountains, in Riverside County, south through eastern San Diego County to Mexican border in vicinity of Jacumba and Mountain Spring; vertical range, 1,700 to 3,500 feet; zonal range, chiefly Upper Sonoran, locally Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 163, Sept. 26, 1933); and southward in Baja California to northern and northwestern slopes of Sierra Juárez (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 234, Apr. 30, 1951).

Dipodomys agilis simulans (Merriam)†*

1904. *Perodipus streatori simulans* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 144, July 14, 1904.

1921. *Dipodomys agilis simulans* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

1925. *Dipodomys agilis latimaxillaris* Huey, Proc. Biol. Soc. Washington, vol. 38, p. 84, May 26, 1925. (Two miles west of Santo Domingo Mission, lat. 30°45′ N., long. 115°58′ W., Baja California, México. Regarded as identical with *simulans* by Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 234, Apr. 30, 1951.)

Type Locality.—Dulzura, San Diego County, Calif. *Range.*—Pacific slope of San Diego County; recorded from Mexican border north to Bonsall; easternmost station, Santa Ysabel; vertical range, near sea level up to 3,000 feet; zonal range, mainly Upper Sonoran, locally into Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 163, Sept. 26, 1933); in Baja California, over great coastal foothill area from western base of Sierra Juárez to Pacific Ocean and from international boundry directly south of Campo, Calif., as far south as Rancho San Pablo, 10 miles south of Álamo, thence diagonally southwest to San Quintín and Pacific Ocean (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 234, Apr. 30, 1951).

Dipodomys agilis martirensis Huey*

1927. *Dipodomys agilis martirensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, No. 1, p. 7, Feb. 20, 1927.

Type Locality.—La Grulla (east side of valley), Sierra San Pedro Mártir, Baja California, México. Altitude, 7,500 feet. *Range.*—Higher parts of Sierra Juárez, southward to La Grulla in Sierra San Pedro Mártir, and westward along higher foothill slopes to vicinity of San José (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 239, Apr. 30, 1951).

Dipodomys agilis plectilis Huey

1951. *Dipodomys agilis plectilis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 240, Apr. 30, 1951.

Type Locality.—Mouth of canyon San Juan de Díos, lat. 30°7′ N., Baja California, México. *Range.*—From El Rosario Valley as far eastward as mouth of canyon San Juan de Díos, a distance of about 10 miles airline, thence southward to Aguaito and El Mármol and thence coastwise to near Santa Catarina and Santa Catarina Landing.

Dipodomys paralius Huey

1951. *Dipodomys paralius* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 241, Apr. 30, 1951.

Type Locality.—Santa Catarina Landing, lat. 29°31′ N., Baja California, México. *Range.*—Near Santa Catarina and around Santa Catarina Landing.

Dipodomys peninsularis peninsularis (Merriam)†*

1907. *Perodipus simulans peninsularis* Merriam, Proc. Biol. Soc. Washington, vol. 20, p. 79, July 22, 1907.

1921. *Dipodomys agilis peninsularis* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

1951. *Dipodomys peninsularis peninsularis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 246, Apr. 30, 1951.

Type Locality.—Santo Domingo Landing, lat. 28°51′ N., long. 114° W., Baja California, México. *Range.*—Vizcaíno Desert from below Punta Prieta (about lat. 28°40′ N.) south to vicinity of San Ignacio (lat. 27°20′ N.), thence over peninsular divide to El Valle de Yaqui between San Ignacio and Santa Rosalía on Gulf slope (Huey, loc. cit.).

Dipodomys peninsularis pedionomus Huey

1951. *Dipodomys peninsularis pedionomus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 247, Apr. 30, 1951.

Type Locality.—Two miles north of Chapala Dry Lake, lat. 29°30′ N., long. 114°35′ W., on Llano de Santa Ana, Baja California, México. *Range.*—Inland llanos from southeast of San Fernando Mission south to valley region below Punta Prieta and eastward to Valle de Agua Amargá and San Borjas Mission.

Dipodomys peninsularis eremoecus Huey

1951. *Dipodomys peninsularis eremoecus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 248, Apr. 30, 1951.

Type Locality.—Seven miles west of San Francisquito Bay, lat. 28°30′ N., Gulf of California, Baja California, México. *Range.*—Wide llano-like region bordering Santa Teresa and San Francisquito bays on Gulf side of Baja California.

Dipodomys peninsularis australis Huey*

1951. *Dipodomys peninsularis australis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 249, Apr. 30, 1951.

Type Locality.—Santo Domingo, Magdalena Plain, Baja California, México. *Range.*—Magdalena Plain from San Jorge in northernmost section, south to Matancita, a ranch inland from mouth of Magdalena Bay at about lat. 24°40′ N.

Dipodomys venustus venustus (Merriam)†*

1904. *Perodipus venustus* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 142, July 14, 1904.

1919. *Dipodomys venustus* Grinnell, Proc. Biol. Soc. Washington, vol. 32, p. 204, Dec. 31, 1919.

Type Locality.—Santa Cruz, Santa Cruz County, Calif. *Range.*—Chiefly Santa Cruz Mountains; in other words, area lying between San Francisco and Monterey Bay; but also east to Mount Hamilton, Santa Clara County, and southeast to Fremont Peak, in northern end of Gabilan Range, Monterey County; vertical range, near sea level up to 4,000 feet; zonal range, chiefly Upper Sonoran, into Transition locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 164, Sept. 26, 1933).

Dipodomys venustus sanctiluciae Grinnell*

1919. *Dipodomys sanctiluciae* Grinnell, Proc. Biol. Soc. Washington, vol. 32, p. 204, Dec. 31, 1919.

1921. *Dipodomys venustus sanctiluciae* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—One mile southwest of Jolon, Monterey County, Calif. *Range.*—Santa Lucia Mountain region, Calif.; in other words, mountainous area lying between Monterey Bay and San Luis Obispo, and between Salinas Valley and seacoast; vertical range, 900 to 5,900 feet; zonal range, chiefly Upper Sonoran and into Transition locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 164, Sept. 26, 1933).

Dipodomys elephantinus (Grinnell)*

1919. *Perodipus elephantinus* Grinnell, Univ. California Publ. Zool., vol. 21, No. 2, p. 43, Mar. 29, 1919.

1921. *Dipodomys elephantinus* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—One mile north of Cook Post Office, Bear Valley, San Benito County, Calif. Altitude, 1,300 feet. *Range.*—Southern portion of Gabilan Range (in vicinity of Pinnacles), in San Benito and eastern Monterey Counties; vertical range, about 1,300 feet; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 164, Sept. 26, 1933). Possible intergradation with *venustus* in southern Santa Cruz County, Calif. (recorded by Hawbecker, Journ. Mamm., vol. 21, No. 4, p. 388, Nov. 14, 1940).

microps—group [2]

Dipodomys microps microps (Merriam)†*

1904. *Perodipus microps* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 145, July 14, 1904.

1921. *Dipodomys microps* Grinnell, Journ. Mamm., vol. 2, No. 2, p. 96, May 2, 1921.

Type Locality.—Lone Pine, Owens Valley, Inyo County, Calif. *Range.*—Owens Valley, from near Benton, Mono County, south to Olancha, Inyo County; also vicinity of Victorville, on Mohave Desert, San Bernardino County; vertical range, 2,700 to 7,700 feet; zonal range, Lower Sonoran; into Upper Sonoran locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 164, Sept. 26, 1933). Recorded at 10,400 feet on Big Prospector Meadow, White Mountains, Mono County (Bole, Journ. Mamm., vol. 19, No. 2, p. 246, May 12, 1938).

Dipodomys microps levipes (Merriam)†*

1904. *Perodipus microps levipes* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 145, July 14, 1904.

1931. *Dipodomys microps levipes* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 5, Apr. 10, 1931.

Type Locality.—Perognathus Flat, Emigrant Gap (near Bench Mark 4899, 2 miles northwest of Harrisburg, according to Grinnell, Univ. California Publ.

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[2] Revised by Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, pp. 47–63, Nov. 10, 1939.

Zool., vol. 24, No. 1, p. 105, June 17, 1922), Panamint Mountains, Inyo County, Calif. Altitude, 5,200 feet. *Range.*—Portions of Inyo County lying east from Owens Lake to Nevada line; westernmost station, Olancha; southernmost, Darwin; vertical range, 3,600 to 5,300 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 165, Sept. 26, 1933).

Dipodomys microps aquilonius Willett

1935. *Dipodomys microps aquilonius* Willett, Journ. Mamm., vol. 16, No. 1, p. 63, Feb. 14, 1935.

Type Locality.—Three miles east of Eagleville, Modoc County, Calif. *Range.*—Washoe County, Nev., and extreme eastern California from Surprise Valley south to near the south end of Pyramid Lake, Nev. (Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, p. 55, Nov. 10, 1939).

Dipodomys microps occidentalis Hall and Dale*

1939. *Dipodomys microps occidentalis* Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, p. 56, Nov. 10, 1939.

Type Locality.—Three miles south of Schurz, Mineral County, Nev. Altitude, 4,100 feet. *Range.*—Western and southern Nevada, and eastern California in Mono and Inyo Counties; south from southern Humboldt County, Nev., to Death Valley, Calif., and Las Vegas, Nev.; east from Black Rock Desert, Sierra Nevada, White Mountains, and Death Valley, to Smiths Creek Valley, Lander County, and Mud Lake, Nye County, thence east (south of Pahute Mesa) to a point 21 miles west of Panaca, in Desert Valley.

Dipodomys microps centralis Hall and Dale*

1939. *Dipodomys microps centralis* Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, p. 52, Nov. 10, 1939.

Type Locality.—Four miles southeast of Romano, Diamond Valley, Eureka County, Nev. *Range.*—Central Nevada from Humboldt River Valley south to Pahute Mesa; east from northeastern Pershing County, Reese River Valley, Great Smoky, and Ralston Valleys to Steptoe and Spring Valleys.

Dipodomys microps preblei (Goldman)†*

1921. *Perodipus microps preblei* Goldman, Journ. Mamm., vol. 2, No. 4, p. 233, Nov. 29, 1921.

1939. *Dipodomys microps preblei* Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, p. 54, Nov. 10, 1939.

Type Locality.—Narrows, Malheur Lake, Harney County, Oreg. *Range.*—Southeastern Oregon and northern Humboldt County, Nev.; south from Narrows, Oreg., to 17 miles south of Quinn River Crossing, Nev.; east from Summer Lake, Oreg., to Owyhee River, Oreg. (Hall and Dale, loc. cit.).

Dipodomys microps idahoensis Hall and Dale

1939. *Dipodomys microps idahoensis* Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, p. 53, Nov. 10, 1939.

Type Locality.—Five miles southeast of Murphy, Owyhee County, Idaho. *Range.*—Known only from northern Owyhee County.

Dipodomys microps bonnevillei Goldman†*

1937. *Dipodomys microps bonnevillei* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 222, Dec. 28, 1937.

Type Locality.—Kelton, Box Elder County, Utah. Altitude, about 4,300 feet. *Range.*—Western Utah from Idaho–Utah line, south to northern Iron County; from western border of Utah east as far as western edge of Sevier County (Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 12, June 30, 1945); and eastern Nevada south from near Contact in Elko County to northern Lincoln County (Hall, Mammals of Nevada, p. 423, July 1, 1946).

Dipodomys microps russeolus Goldman†*

1939. *Dipodomys microps russeolus* Goldman, Journ. Mamm., vol. 20, No. 3, p. 353, Aug. 14, 1939.

Type Locality.—Dolphin Island, Great Salt Lake, Box Elder County, Utah. Altitude, 4,250 feet. *Range.*—Known from Dolphin Island only.

Dipodomys microps subtenuis Goldman†*

1939. *Dipodomys microps subtenuis* Goldman, Journ. Mamm., vol. 20, No. 3, p. 354, Aug. 14, 1939.

Type Locality.—Carrington Island, Great Salt Lake, Tooele County, Utah. Altitude, 4,250 feet. *Range.*—Badger, Carrington, and Stansbury Islands, Great Salt Lake, and probably south through Rush Valley to Cedar Valley west of Utah Lake, Utah County, Utah (Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 15, June 30, 1945).

Dipodomys microps alfredi Goldman†*

1937. *Dipodomys microps alfredi* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 221, Dec. 28, 1937.

Type Locality.—Gunnison Island, Great Salt Lake, Box Elder County, Utah. Altitude, 4,300 feet. *Range.*—Gunnison Island.

Dipodomys microps woodburyi Hardy

1942. *Dipodomys microps woodburyi* Hardy, Proc. Biol. Soc. Washington, vol. 55, p. 89, June 25, 1942.

Type Locality.—In the *Clistoyucca* area on Beaver Dam Slope, west of Beaver Dam Mountains, Washington County, Utah. Altitude, 3,300 feet. *Range.*—Known only from west slope of Beaver Dam Mountains in southwestern Washington County, Utah (Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 16, June 30, 1945).

Dipodomys microps celsus Goldman†*

1924. *Dipodomys microps celsus* Goldman, Journ. Washington Acad. Sci., vol. 14, No. 15, p. 372, Sept. 19, 1924.

Type Locality.—Six miles north of Wolf Hole (about 30 miles south of St. George, Utah), Mohave County, Ariz. Altitude, 3,500 feet. *Range.*—Southwestern Utah along Virgin River and northwestern Arizona north of Colorado River; east to Kanab Creek (Hall and Dale, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 4, p. 60, Nov. 10, 1939).

Dipodomys microps leucotis Goldman†*

1931. *Dipodomys microps leucotis* Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 135, Oct. 17, 1931.

Type Locality.—Six miles west of Colorado River Bridge, House Rock Valley, north side of Marble Canyon of Colorado River, Coconino County, Ariz. Altitude, 3,700 feet. *Range.*—Recorded also from near Colorado River bridge on south side of Colorado River, Coconino County, Ariz. (Hardy, Journ. Mamm., vol. 30, No. 4, p. 435, Nov. 17, 1949).

deserti—group

Dipodomys deserti deserti Stephens†*

1887. *Dipodomys deserti* Stephens, Amer. Nat., vol. 21, p. 42, January 1887.

1904. *Dipodomys deserti helleri* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 249, Jan. 7, 1904. (Keeler, Owens Lake, Inyo County, Calif.)

Type Locality.—Mohave River [bottom at upper crossing on old road from Cajon Pass to Rabbit Springs, 3 or 4 miles from, and opposite, Hesperia], San Bernardino County, Calif. *Range.*—Colorado Desert district of northeastern Baja California from vicinity of Pilot Knob westward along international boundary to base of Coast Range Mountains, thence southward along eastward edge of Pattie Basin, skirting desert base of Sierra San Pedro Mártir at least to latitude of San Felipe (Huey, Trans. San Diego Soc. Nat. Hist., vol. 11, No. 10, p. 253, Apr. 30, 1951); Colorado and Mohave Desert regions, Calif., north from Mexican border to Death Valley and Owens Valley (on east side to Alvord, Inyo County); west from Colorado River across Mohave Desert at least to vicinity of Hesperia, San Bernardino County, and across Colorado Desert to Whitewater, Riverside County, and Borego Spring, eastern San Diego County; vertical range, 200 to 3,900 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 165, Sept. 26, 1933); extreme northwest arm of Sonora (at El Doctor), México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 49, Feb. 15, 1938); western Arizona (Grinnell, Univ. California Publ. Zool., vol. 12, No. 4, p. 240, Mar. 20, 1914); Lower Sonoran Zone of southern Nevada and low western part of State in salt-desert area north to southern Humboldt County (Hall, Mammals of Nevada, p. 428, July 1, 1946); and Beaver Dam Wash, in extreme southwestern Washington County, Utah (Durrant and Setzer, Bull. Univ. Utah, vol. 35, No. 26, p. 9, June 30, 1945).

Dipodomys deserti sonoriensis Goldman†*

1923. *Dipodomys deserti sonoriensis* Goldman, Proc. Biol. Soc. Washington, vol. 36, p. 139, May 1, 1923.

Type Locality.—La Libertad Ranch, 30 miles east of Sierra Seri, Sonora, México. *Range.*—Lower desert coastal area of western Sonora in vicinity of La Libertad and Costa Rica Ranches north to Arizona (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 50, Feb. 15, 1938). Recorded from 3 miles east of Picacho, Pinal County, south-central Arizona (Willett, Journ. Mamm., vol. 18, No. 1, p. 101, Feb. 11, 1937). Specimens from southwestern Arizona grade toward this subspecies (Goldman, op. cit., p. 140).

Genus **MICRODIPODOPS**[3] **Merriam (pigmy kangaroo-rats)**

1891. *Microdipodops* Merriam, North Amer. Fauna No. 5, p. 115, July 30, 1891. (Type, *Microdipodops megacephalus* Merriam.)

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[3] Revised by Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, pp. 233–275, Dec. 8, 1941.

Microdipodops megacephalus megacephalus Merriam†*

1891. *Microdipodops megacephalus* Merriam, North Amer. Fauna No. 5, p. 116, July 30, 1891.

Type Locality.—Halleck, East Humboldt Valley, Elko County, Nev. *Range.*—Northeastern Nevada; from northern Elko County south to northern Nye and Lincoln Counties; and from western Lander County east almost to the Utah boundary (Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 258, Dec. 8, 1941).

Microdipodops megacephalus oregonus Merriam†*

1901. *Microdipodops megacephalus oregonus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 127, July 19, 1901.

Type Locality.—Wild Horse Creek, 4 miles northwest of Lake Alvord, Alvord Desert, Harney County, eastern Oregon. *Range.*—Arid Upper Sonoran valleys of southeastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 241, Aug. 29, 1936); northeastern California in extreme eastern parts of Modoc and Lassen Counties, from east of Eagleville, in Surprise Valley, south to east end of Madeline Plains north of Observation Peak (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 165, Sept. 26, 1933); and northwestern Nevada northwest of Black Rock and Smoke Creek deserts (Hall, Mammals of Nevada, p. 388, July 1, 1946).

Microdipodops megacephalus californicus Merriam†*

1901. *Microdipodops californicus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 128, July 19, 1901.

1941. *Microdipodops megacephalus californicus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 250, Dec. 8, 1941.

Type Locality.—Sierra Valley, near Vinton, Plumas County, Calif. *Range.*—Intermontane valleys of eastern Plumas County (Hall, loc. cit.); and western Nevada from Pyramid in Washoe County southward at least to 3½ miles east of Carson City in Carson River Valley (Hall, Mammals of Nevada, p. 388, July 1, 1946).

Microdipodops megacephalus nasutus Hall

1941. *Microdipodops megacephalus nasutus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 251, Dec. 8, 1941.

Type Locality.—Fletcher, Mineral County, Nev. Altitude, 6,098 feet. *Range.*—Known from type locality only.

Microdipodops megacephalus polionotus Grinnell*

1914. *Microdipodops polionotus* Grinnell, Univ. California Publ. Zool., vol. 12, No. 7, p. 302, Apr. 15, 1914.

1941. *Microdipodops megacephalus polionotus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 251, Dec. 8, 1941.

Type Locality.—McKeever's Ranch, 2 miles south of Benton Station, Mono County, Calif. Altitude, 5,200 feet. *Range.*—Mono Lake Basin and extreme head of Owens Valley, in Mono County; southeast from south side of Mono Lake to vicinity of Benton and Benton Station; west to Taylor Valley; vertical range, 5,200 to 7,000 feet; zonal range, Upper Sonoran and dilute Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 166, Sept. 26, 1933).

Microdipodops megacephalus ambiguus Hall*

1941. *Microdipodops megacephalus ambiguus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 251, Dec. 8, 1941.

Type Locality.—One and one-fourth miles north of Sulphur, Humboldt County, Nev. Altitude, 4,050 feet. *Range.*—Smoke Creek and Black Rock Deserts and lower part of Humboldt River Valley in Nevada and in extreme eastern California; from Quinn River Crossing southwest to Flanigan, south to Humboldt, and east to Golconda.

Microdipodops megacephalus medius Hall

1941. *Microdipodops megacephalus medius* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 256, Dec. 8, 1941.

Type Locality.—Three miles south of Vernon, Pershing County, Nev. Altitude, 4,250 feet. *Range.*—Southwestern Pershing County.

Microdipodops megacephalus nexus Hall

1941. *Microdipodops megacephalus nexus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 257, Dec. 8, 1941.

Type Locality.—Three miles south of Izenhood, Lander County, Nev. *Range.*—From 5½ miles northeast of Golconda, Humboldt County, east to Izenhood, Lander County, Nev.

Microdipodops megacephalus sabulonis Hall

1941. *Microdipodops, megacephalus sabulonis* Hall, Proc. Biol. Soc. Washington, vol. 54, p. 59, May 20, 1941; Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 260, Dec. 8, 1941.

Type Locality.—Five miles southeast of Kawich Post Office, Kawich Valley, Nye County, Nev. Altitude, 5,400 feet. *Range.*—South-central Nevada from eastern Esmeralda County eastward across Nye County to western Lincoln County.

Microdipodops megacephalus albiventer Hall and Durrant

1937. *Microdipodops pallidus albiventer* Hall and Durrant, Journ. Mamm., vol. 18, No. 3, p. 357, Aug. 14, 1937.

1941. *Microdipodops megacephalus albiventer* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 263, Dec. 8, 1941.

Type Locality.—Desert Valley, 21 miles west of Panaca, Lincoln County, Nev. Altitude, 5,300 feet. *Range.*—Desert Valley in central Lincoln County (Hall, loc. cit.).

Microdipodops megacephalus paululus Hall and Durrant*

1941. *Microdipodops megacephalus paululus* Hall and Durrant, Murrelet, vol. 22, No. 1, p. 5, Apr. 30, 1941.—Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 266, Dec. 8, 1941.

Type Locality.—Pine Valley, ½ mile east of headquarters building of Desert Range Experiment Station of U. S. Forest Service, T. 25 S., R. 17 W., sec. 33, Salt Lake Bench Mark, Millard County, Utah. *Range.*—Western Utah in Pine, White, and Snake Valleys (Hall, loc. cit.).

Microdipodops megacephalus leucotis Hall and Durrant

1941. *Microdipodops megacephalus leucotis* Hall and Durrant, Murrelet, vol. 22, No. 1, p. 6, April 30, 1941.—Hall, Field Mus. Nat. Hist. Publ. 511, Zool Ser., vol. 27, p. 266, Dec. 8, 1941.

Type Locality.—Eighteen miles southwest of Orr's Ranch, Tooele County, Utah. Altitude, 4,400 feet. *Range.*—Known from type locality only.

Microdipodops pallidus pallidus Merriam†*

1901. *Microdipodops pallidus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 127, July 19, 1901.

1926. *Microdipodops megacephalus lucidus* Goldman†, Proc. Biol. Soc. Washington, vol. 39, p. 127, Dec. 27, 1926. (Sand dunes in Clayton Valley, 8 miles southeast of Blair, Esmeralda County, Nev.; altitude, about 4,500 feet.)

1927. *Microdipodops megacephalus dickeyi* Goldman, Proc. Biol. Soc. Washington, vol. 40, p. 115, Sept. 26, 1927. (Three miles southeast of Oasis, Mono County, Calif.; altitude, 5,150 feet.)

Type Locality.—Mountain Well, Churchill County, Nev. (see Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 269, Dec. 8, 1941). *Range.*—Low western part of Nevada from southern Pershing County southward through Fish Lake Valley to Oasis, Mono County, Calif., and in Deep Spring Valley, Inyo County, Calif. (Hall, loc. cit.).

Microdipodops pallidus ammophilus Hall

1941. *Microdipodops pallidus ammophilus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 273, Dec. 8, 1941.

Type Locality.—Railroad Valley, Able Spring, 12½ miles south of Lock's Ranch, Nye County, Nev. Altitude, 5,000 feet. *Range.*—Railroad Valley, eastern Nye County.

Microdipodops pallidus purus Hall

1941. *Microdipodops pallidus purus* Hall, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 273, Dec. 8, 1941.

Type Locality.—Fourteen and one-half miles south of Groom Baldy, Lincoln County, Nev. *Range.*—Emigrant and Desert Valleys in eastern Lincoln County.

Microdipodops pallidus ruficollaris Hall

1941. *Microdipodos* (*sic*) *pallidus ruficollaris* Hall, Proc. Biol. Soc. Washington, vol. 54, p. 60, May 20, 1941; Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 272, Dec. 8, 1941.

Type Locality.—Five miles southeast of Kawich Post Office, Kawich Valley, Nye County, Nev. Altitude, 5,400 feet. *Range.*—Fine sands of valleys from western Nye County eastward to western Lincoln County, Nev.

Subfamily HETEROMYINAE

Genus HETEROMYS[4] Desmarest (spiny pocket mice)

1817. *Heteromys* Desmarest, *in* Nouveau dictionnaire d'histoire naturelle . . ., vol. 14, p. 181. (Type, *Mus anomalus* Thompson.)

Subgenus HETEROMYS Desmarest

desmarestianus—group

Heteromys desmarestianus desmarestianus Gray*

1868. *Heteromys desmarestianus* Gray, Proc. Zool. Soc. London, 1868, pt. 1, p. 204, May 1868.

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[4] Revised by Goldman, North Amer. Fauna No. 34, pp. 14–32, Sept. 7, 1911.

1911. *Heteromys desmarestianus* Goldman, North Amer. Fauna No. 34, p. 20, Sept. 7, 1911.

Type Locality.—Cobán, Alta Verapaz, Guatemala. *Range.*—Mountainous portions of western Guatemala, also northern Chiapas and southern Tabasco, México. Zonal range, Humid Tropical. Recorded also at San Lucas and Puebla in southern Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 30, Dec. 12, 1934), and at Mountain Pine Ridge, British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 25, July 15, 1935).

Heteromys desmarestianus griseus Merriam†*

1902. *Heteromys griseus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 42, Mar. 5, 1902.

1911. *Heteromys desmarestianus griseus* Goldman, North Amer. Fauna No. 34, p. 22, Sept. 7, 1911.

Type Locality.—Mountains near Tonalá, Chiapas, México. *Range.*—Mountains of western Chiapas and along Isthmus of Tehuantepec in eastern Oaxaca. Zonal range, Humid Tropical.

Heteromys desmarestianus psakastus Dickey*

1928. *Heteromys desmarestianus psakastus* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 10, Feb. 1, 1928.

Type Locality.—Los Esesmiles, Chalatenango, El Salvador. Altitude, 8,000 feet. *Range.*—Rain forest at summit of mountains at type locality.

Heteromys desmarestianus fuscatus J. A. Allen*

1908. *Heteromys fuscatus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 652, Oct. 13, 1908.

1920. *Heteromys desmarestianus fuscatus* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 115, footnote, Apr. 26, 1920.

Type Locality.—Tuma, Matagalpa, Nicaragua. *Range.*—Central Nicaragua and central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 155, May 29, 1942).

Heteromys desmarestianus underwoodi Goodwin

1943. *Heteromys desmarestianus underwoodi* Goodwin, Amer. Mus. Nov., No. 1227, p. 1, Apr. 22, 1943.

Type Locality.—Escazú (a small town about 7 miles southwest of San José City), San José, Costa Rica. Altitude, about 3,000 feet. *Range.*—Highlands of central Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 372, Dec. 31, 1946).

Heteromys desmarestianus planifrons Goldman†*

1937. *Heteromys desmarestianus planifrons* Goldman, Journ. Washington Acad. Sci., vol. 27, No. 10, p. 418, Oct. 15, 1937.

Type Locality.—San Gerónimo de Pirris, San José, western Costa Rica. *Range.*—Western Costa Rica; limits of range undetermined.

Heteromys desmarestianus subaffinis Goldman†*

1937. *Heteromys desmarestianus subaffinis* Goldman, Journ. Washington Acad. Sci., vol. 27, No. 10, p. 420, Oct. 15, 1937.

Type Locality.—Angostura, southern side of Río Reventazón, opposite Turrialba, Cartago, Costa Rica. Altitude, about 1,980 feet. *Range.*—Río Reventazón and Río Pacuare valleys, eastern Costa Rica; limits of range unknown.

Heteromys desmarestianus chiriquensis Enders

1938. *Heteromys desmarestianus chiriquensis* Enders, Proc. Acad. Nat. Sci. Philadelphia, vol. 90, p. 141, Sept. 20, 1938.

Type Locality.—Between Río Chiriquí Viejo and its tributary Río Colorado, on a hill called Cerro Pando, about 10 miles from Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 4,000 feet. *Range.*—Southwestern Panamá and possibly adjacent parts of Costa Rica. Recorded also at Agua Buena, Puntarenas, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 370, Dec. 31, 1946).

Heteromys desmarestianus repens Bangs*

1902. *Heteromys repens* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 45, Apr. 1902.

1920. *Heteromys desmarestianus repens* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 115, Apr. 24, 1920.

Type Locality.—Bóquete, southern slope of Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 4,000 feet. *Range.*—Panamá and probably also in Costa Rica.

Heteromys desmarestianus zonalis Goldman†*

1912. *Heteromys zonalis* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 9, Feb. 19, 1912.

1920. *Heteromys desmarestianus zonalis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 116, Apr. 24, 1920.

Type Locality.—Río Indio, near Gatún, Canal Zone, Panamá. *Range.*—Rocky slopes of heavily forested hills near Atlantic coast of Panamá.

Heteromys desmarestianus panamensis Goldman†*

1912. *Heteromys panamensis* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 9, Feb. 19, 1912.

1920. *Heteromys desmarestianus panamensis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 117, Apr. 24, 1920.

Type Locality.—Cerro Azul, near headwaters of Río Chagres, Panamá. Altitude, 2,800 feet. *Range.*—Dense forest from 2,000 to 3,000 feet altitude near headwaters of Río Chagres and on Cerro Brujo, near Atlantic coast of Panamá.

Heteromys desmarestianus crassirostris Goldman†*

1912. *Heteromys crassirostris* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 10, Sept. 20, 1912.

1920. *Heteromys desmarestianus crassirostris* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 117, Apr. 24, 1920.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 5,000 feet. *Range.*—Densely forested upper slopes of mountains (4,500 to 5,000 feet) in vicinity of type locality.

Heteromys australis pacificus Pearson

1939. *Heteromys australis pacificus* Pearson, Not. Naturae, Acad. Nat. Sci. Philadelphia, No. 6, p. 4, June 8, 1939.

Type Locality.—Amagal, south of Guayabo Bay, Darién, eastern Panamá. Altitude, 1,000 feet.

Heteromys australis conscius Goldman†*

1913. *Heteromys australis conscius* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 8, Feb. 28, 1913.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Known from type locality only.

Heteromys temporalis Goldman†*

1911. *Heteromys temporalis* Goldman, North Amer. Fauna No. 34, p. 26, Sept. 7, 1911.

Type Locality.—Motzorongo, Veracruz, México. *Range.*—Heavily forested eastern basal slopes of mountains in central Veracruz. Zonal range, Humid Tropical.

Heteromys lepturus Merriam†*

1902. *Heteromys goldmani lepturus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 42, Mar. 5, 1902.

1911. *Heteromys lepturus* Goldman, North Amer. Fauna No. 34, p. 25, Sept. 7, 1911.

Type Locality.—Mountains near Santo Domingo (a few miles west of Guichicovi), Oaxaca, México. *Range.*—Humid, heavily forested mountain slopes and coastal plains in northeastern Oaxaca and southeastern Veracruz. Zonal range, Humid Tropical.

Heteromys goldmani Merriam†*

1902. *Heteromys goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 41, Mar. 5, 1902.

Type Locality.—Chicharras, Chiapas, México. *Range.*—Heavily forested Pacific slope of Sierra Madre in extreme southern Chiapas, México, and adjacent portions of Guatemala. Zonal range, Humid Tropical. Recorded also at Zunil (5,000 feet) in southwestern Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 31, Dec. 12, 1934).

Heteromys longicaudatus Gray*

1868. *Heteromys longicaudatus* Gray, Proc. Zool. Soc. London, 1868, pt. 1, p. 204, May 1868.

1911. *Heteromys longicaudatus* Goldman, North Amer. Fauna No. 34, p. 23, Sept. 7, 1911.

Type Locality.—"México." *Range.*—Low coastal plains of Tabasco, México, and probably adjacent portions of Chiapas, southwestern Campeche, and northwestern Guatemala. Zonal range, Humid Tropical.

Heteromys gaumeri J. A. Allen and Chapman*

1897. *Heteromys gaumeri* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 9, Feb. 23, 1897.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Northern parts of Campeche, Yucatán, and Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 234, Sept .28, 1950).

Subgenus XYLOMYS Merriam

1902. *Xylomys* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 43, Mar. 5, 1902. (Type, *Heteromys nelsoni* Merriam.)

Heteromys nelsoni Merriam†*

1902. *Heteromys* (*Xylomys*) *nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 43, Mar. 5, 1902.

Type Locality.—Pinabete, Chiapas, México. Altitude, 8,200 feet. *Range.*—Humid, heavily forested Pacific slopes of Sierra Madre in southern Chiapas, México, and doubtless adjacent portions of Guatemala.

Heteromys oresterus Harris

1932. *Heteromys oresterus* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 248, p. 4, August 4, 1932. (For status see Goldman, Journ. Washington Acad. Sci., vol. 27, No. 10, p. 419, Oct. 15, 1937.)

Type Locality.—El Copey de Dota, Cordillera de Talamanca, Cartago, Costa Rica. Altitude, 6,000 feet. *Range.*—Known only from vicinity of type locality.

Genus LIOMYS[5] Merriam

1902. *Liomys* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 44, Mar. 5, 1902. (Type, *Heteromys alleni* Coues.)

pictus—group

Liomys pictus pictus (Thomas)*

1893. *Heteromys pictus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 12, p. 233, September 1893.

1897. *Heteromys hispidus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 56, Mar. 15, 1897. (Compostela, Nayarit, México.)

1911. *Liomys pictus* Goldman, North Amer. Fauna No. 34, p. 33, Sept. 7, 1911.

Type Locality.—Mineral San Sebastián, Jalisco, México. Altitude, 4,300 feet. *Range.*—Coastal plains and basal mountain slopes in western Jalisco and Colima and probably western Michoacán. Zonal range, Arid Tropical.

Liomys pictus escuinapae (J. A. Allen)*

1906. *Heteromys pictus escuinapae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 211, July 25, 1906.

1911. *Liomys pictus escuinapae* Goldman, North Amer. Fauna No. 34, p. 35, Sept. 7, 1911.

Type Locality.—Escuinapa, Sinaloa, México. *Range.*—Coastal plains and Pacific slopes of Sierra Madre from southern Sinaloa southward, passing into typical *pictus* in southern Nayarit and northwestern Jalisco. Zonal range, Arid Tropical and Lower Sonoran.

Liomys pictus sonoranus Merriam†*

1902. *Liomys sonorana* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 47, Mar. 5, 1902.

1911. *Liomys pictus sonorana* Goldman, North Amer. Fauna No. 34, p. 36, Sept. 7, 1911.

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[5] Revised by Goldman, North Amer. Fauna No. 34, pp. 32–63, Sept. 7, 1911.

Type Locality.—Alamos, Sonora, México. *Range.*—Arid coastal plains and basal slopes of Sierra Madre from southern Sonora to southern Sinaloa; mainly overlapping portions of Lower Sonoran and Arid Tropical Zones. In southern Sonora, north at least as far as Ures (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 43, Feb. 15, 1938).

Liomys pictus plantinarensis Merriam†*

1902. *Liomys plantinarensis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 46, Mar. 5, 1902.

1911. *Liomys pictus plantinarensis* Goldman, North Amer. Fauna No. 34, p. 37, Sept. 7, 1911.

Type Locality.—Plantanar, Jalisco, México. *Range.*—Interior valleys and deep canyons along western slopes of plateau region in western and southern Jalisco and northwestern Michoacán. Zonal range, mainly Arid Tropical.

Liomys pictus parviceps Goldman†*

1904. *Liomys parviceps* Goldman, Proc. Biol. Soc. Washington, vol. 17, p. 82, Mar. 21, 1904.

1911. *Liomys pictus parviceps* Goldman, North Amer. Fauna No. 34, p. 38, Sept. 7, 1911.

Type Locality.—La Salada, 40 miles south of Uruapan, Michoacán, México. *Range.*—Arid valley of Río Balsas in southern Michoacán and northern and extreme western Guerrero. Zonal range, Arid Tropical.

Liomys pictus rostratus Merriam†*

1902. *Liomys pictus rostratus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 46, Mar. 5, 1902.

Type Locality.—Near Ometepec, Guerrero, México. *Range.*—Arid coastal plains and basal mountain slopes in southeastern Guerrero. Zonal range, Arid Tropical.

Liomys pictus phaeurus Merriam†*

1902. *Liomys phaeura* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 48, Mar. 5, 1902.

1911. *Liomys pictus phaeurus* Goldman, North Amer. Fauna No. 34, p. 40, Sept. 7, 1911.

Type Locality.—Pinotepa, Oaxaca, México. *Range.*—Arid coastal region of southwestern Oaxaca. Zonal range, Arid Tropical.

Liomys pictus isthmius Merriam†*

1902. *Liomys pictus isthmius* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 46, Mar. 5, 1902.

Type Locality.—Tehuantepec, Oaxaca, México. *Range.*—Arid coastal plains and interior valleys on southern side of Isthmus of Tehuantepec in southeastern Oaxaca and western Chiapas and thence eastward through valley of Río Chiapas to Nentón, Guatemala. Zonal range, Arid Tropical.

Liomys pictus veraecrucis Merriam†*

1902. *Liomys veraecrucis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 47, Mar. 5, 1902.

1902. *Liomys orbitalis* Merriam†, Proc. Biol. Soc. Washington, vol. 15, p. 48, Mar. 5, 1902. (Catemaco, Veracruz, México.)

1911. *Liomys pictus veraecrucis* Goldman, North Amer. Fauna No. 34, p. 42, Sept. 7, 1911.

Type Locality.—San Andrés Tuxtla, Veracruz, México. *Range.*—Humid northern slopes of Isthmus of Tehuantepec and coastal plains in southern Veracruz. Zonal range, Humid Tropical.

Liomys pictus obscurus Merriam†*

1902. *Liomys obscurus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 48, Mar. 5, 1902.

1903. *Heteromys paralius* Elliot, Field Columb. Mus. Publ. 80, Zool. Ser., vol. 3, No. 13 (June), p. 233, Sept. 3, 1903. (San Carlos, Veracruz, México.)

1911. *Liomys pictus obscurus* Goldman, North Amer. Fauna No. 34, p. 44, Sept. 7, 1911.

Type Locality.—Carrizal, Veracruz, México. *Range.*—Arid coastal plains in south-central Veracruz. Zonal range, Arid Tropical.

Liomys annectens (Merriam)†*

1902. *Heteromys annectens* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 43, Mar. 5, 1902.

1911. *Liomys annectens* Goldman, North Amer. Fauna No. 34, p. 45, Sept. 7, 1911.

Type Locality.—Pluma, Oaxaca, México. *Range.*—Pacific slopes of Sierra Madre in Oaxaca and Guerrero. Zonal range, Humid Tropical.

crispus—group

Liomys crispus crispus Merriam†*

1902. *Liomys crispus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 49, Mar. 5, 1902.

Type Locality.—Tonalá, Chiapas, México. *Range.*—Coastal plains and lower foothills of Sierra Madre in western Chiapas. Zonal range, Arid Tropical.

Liomys crispus setosus Merriam†*

1902. *Liomys crispus setosus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 49, Mar. 5, 1902.

Type Locality.—Huehuetán, Chiapas, México. *Range.*—Forested coastal plains and lower foothills in southern Chiapas, México, and western Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 31, Dec. 12, 1934).

Liomys heterothrix Merriam†*

1902. *Liomys heterothrix* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 50, Mar. 5, 1902.

Type Locality.—San Pedra Sula, Río Chamelecón, Cortés, near coast of northwestern Honduras. *Range.*—Southeastern Guatemala, and central and northern Honduras from sea level to 2,500 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 155, May 29, 1942).

Liomys adspersus (Peters)*

1874. *Heteromys adspersus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1874, p. 357, May 1874.

1911. *Liomys adspersus* Goldman, North Amer. Fauna No. 34, p. 51, Sept. 7, 1911.

Type Locality.—"Panamá." (Restricted to city of Panamá by Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 118, Apr. 26, 1920.) *Range.*—Probably restricted to arid belt bordering Pacific coast of Panamá; recorded at Balboa and Empire (Goldman, 1920, p. 119).

Liomys salvini salvini (Thomas)*

1893. *Heteromys salvini* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 331, April 1893.

1911. *Liomys salvini* Goldman, North Amer. Fauna No. 34, p. 50, Sept. 7, 1911.

Type Locality.—Dueñas, Sacatepequez, Guatemala. *Range.*—Southern Guatemala and in mountains south to south-central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 156, May 29, 1942).

Liomys salvini nigrescens (Thomas)*

1893. *Heteromys salvini nigrescens* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 12, p. 234, September 1893.

1911. *Liomys salvini nigrescens* Goldman, North Amer. Fauna No. 34, p. 51, Sept. 7, 1911.

Type Locality.—Costa Rica. (Probably Escazú, San José, Costa Rica. Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 374, Dec. 31, 1946.) *Range.*—Highlands of central Costa Rica. Recorded in San José Province at Los Higuerónes, Escazú, Altos Escazú, and Villa Colón (Goodwin, loc. cit.).

Liomys salvini aterrimus Goodwin

1938. *Liomys salvini aterrimus* Goodwin, Amer. Mus. Nov., No. 987, p. 4, May 13, 1938.

Type Locality.—Sabanilla de Pirris, a town on Pacific Coast Range, about 10 miles south of Puriscal, San José, Costa Rica. Altitude, about 3,730 feet. *Range.*—Lower slopes of Pacific Coast Range of northwestern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 374, Dec. 31, 1946).

Liomys salvini vulcani (J. A. Allen)

1908. *Heteromys vulcani* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 652, Oct. 13, 1908.

1911. *Liomys vulcani* Goldman, North Amer. Fauna No. 34, p. 48, Sept. 7, 1911.

1946. *Liomys salvini vulcani* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 374, Dec. 31, 1946.

Type Locality.—Volcán de Chinandega, Chinandega, Nicaragua. Altitude about 4,000 feet. *Range.*—Coast region of western Nicaragua and probably extreme northwestern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 375, Dec. 31, 1946).

Liomys anthonyi Goodwin

1932. *Liomys anthonyi* Goodwin, Amer. Mus. Nov., No. 528, p. 2, May 23, 1932.

Type Locality.—Sacapulas, El Quiché, central Guatemala. Altitude, 4,500 feet. *Range.*—Known from type locality only.

irroratus—group

Liomys irroratus irroratus (Gray)*

1868. *Heteromys irroratus* Gray, Proc. Zool. Soc. London, 1868, pt. 1, p. 205, May 1868.

1868. *Heteromys albolimbatus* Gray, Proc. Zool. Soc. London, 1868, pt. 1, p. 205, May 1868. (La Parada, Oaxaca, México.)

1911. *Liomys irroratus* Goldman, North Amer. Fauna No. 34, p. 53, Sept. 7, 1911.

Type Locality.—Near city of Oaxaca, Oaxaca, México. *Range.*—High plains and mountain slopes of central Oaxaca and Guerrero, México. Known range from Cerro Zempoaltepec and the Sierra Juárez, Oaxaca, west to vicinity of Chilpancingo, Guerrero; vertical range, approximately 4,500 to 8,000 feet (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 5, Oct. 29, 1948).

Liomys irroratus torridus Merriam†*

1902. *Liomys torridus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 45, Mar. 5, 1902.

1903. *Heteromys exiguus* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 146, Mar. 20, 1903. (Puente de Ixtla, Morelos, México.)

1911. *Liomys irroratus torridus* Goldman, North Amer. Fauna No. 34, p. 55, Sept. 7, 1911.

Type Locality.—Cuicatlán, Oaxaca, México. *Range.*—Arid interior slopes and valleys east of Río Balsas drainage in northern Oaxaca and southeastern Puebla, México. Known geographic and vertical range from Cuicatlan, 2,500 feet, Oaxaca, north to Tepanco, 5,700 feet, Peubla (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 11, Oct. 29, 1948).

Liomys irroratus minor Merriam†*

1902. *Liomys torridus minor* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 45, Mar. 5, 1902.

1911. *Liomys irroratus minor* Goldman, North Amer. Fauna No. 34, p. 56, Sept. 7, 1911.

Type Locality.—Huajuapan, Oaxaca, México. *Range.*—Upper slopes and plains of Río Balsas drainage basin in northwestern Oaxaca, eastern Guerrero, southwestern Puebla, and Morelos, México. Known range from Huajuapan and Tlapacingo, Oaxaca, north to Cuernavaca and Yautepec, Morelos; vertical range from 3,000 feet at Puente de Ixtle to 5,000 feet at Huajuapan (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 13, Oct. 29 1948). Also recorded from Tlapa and Tlalixtaquilla, Guerrero, México (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 365, Dec. 15, 1952).

Liomys irroratus pullus Hooper*

1947. *Liomys irroratus pullus* Hooper, Journ. Mamm., vol. 28, No. 1, p. 47, Feb. 17, 1947.

Type Locality.—Tlalpan, Distrito Federal, México. Altitude, 2,250 meters. *Range.*—Known only from localities near México, Distrito Federal, 7,500 to 8,500 feet (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 14, Oct. 29, 1948).

Liomys irroratus acutus Hall and Villa*

1948. *Liomys irroratus acutus* Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 14, p. 253, July 26, 1948.

Type Locality.—Two miles west of Pátzcuaro, Michoacán, México. Altitude, 7,700 feet. *Range.*—Mountainous southern part of Mexican Plateau in northeastern Michoacán and western México. Known geographic and vertical range from vicinity of Pátzcuaro, 7,800 feet, and Cuitzeo, Michoacán, east to Temescaltepec, México, 5,000 feet (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 14, Oct. 29, 1948).

Liomys irroratus jaliscensis (J. A. Allen)*

1906. *Heteromys jaliscensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 251, July 25, 1906.

1911. *Liomys irroratus jalicensis* [sic] Goldman, North Amer. Fauna No. 34, p. 60, Sept. 7, 1911.

Type Locality.—Las Canoas, about 20 miles west of Zapotlán, Jalisco, México. Altitude, 7,000 feet. *Range.*—Southwestern part of Mexican Plateau, in Jalisco and adjoining states to the east and north. Known range from Ameca and Etzatlán, Jalisco, east and south to Zamora, Michoacán; vertical range approximately 4,500 to 6,000 feet (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 17, Oct. 29, 1948).

Liomys irroratus alleni (Coues)*

1881. *Heteromys alleni* Coues, Bull. Mus. Comp. Zool., vol. 8, p. 187, March 1881.

1911. *Liomys irroratus alleni* Goldman, North Amer. Fauna No. 34, p. 56, Sept. 7, 1911.

Type Locality.—Río Verde, San Luis Potosí, México. *Range.*—Central and eastern parts of Mexican Plateau. Known range from vicinity of Monterrey, Nuevo León, south to Chicalote, Aguascalientes, at west and at least to Zimapán, Hidalgo, at east; vertical range from 2,700 feet, near Jaumave, Tamaulipas, to about 6,000 feet at Zimapán (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 18, Oct. 29, 1948).

Liomys irroratus pretiosus Goldman†*

1911. *Liomys irroratus pretiosus* Goldman, North Amer. Fauna No. 34, p. 58, Sept. 7, 1911.

Type Locality.—Metlatoyuca, Puebla, México. *Range.*—Coastal plain and basal slopes of Sierra Madre Oriental in northern Veracruz and Puebla and eastern Querétaro and San Luis Potosí. Known range from Valles, San Luis Potosí, and Jalpan, Querétaro, east and south to Nautla, Veracruz; vertical range from near sea level at Nautla to about 2,500 feet at Jalpan (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 19, Oct. 29, 1948).

Liomys irroratus texensis Merriam†*

1902. *Liomys texensis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 44, Mar. 5, 1902.

1911. *Liomys irroratus texensis* Goldman, North Amer. Fauna No. 34, p. 59, Sept. 7, 1911.

Type Locality.—Brownsville, Cameron County, Tex. *Range.*—Low plains and mountains east of Sierra Madre Oriental in southern Texas, Tamaulipas and eastern Nuevo León in México. Known range from Brownsville, Tex., south to Sierra de Tamaulipas and west to vicinity of General Terán and Montemorelos; vertical range from near sea level, at Brownsville, to 2,600 feet at Acuña in Sierra de Tamaulipas (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 20, Oct. 29, 1948). Recorded also near Raymondville, Willacy County, Tex. (Blair, Journ. Mamm., vol. 30, No. 3, p. 201, May 23, 1949).

Liomys irroratus canus Merriam†*

1902. *Liomys canus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 44, Mar. 5, 1902.

1911. *Liomys irroratus canus* Goldman, North Amer. Fauna No. 34, p. 60, Sept. 7, 1911.

Type Locality.—Near Parral, Chihuahua, México. *Range.*—Eastern flank of Sierra Madre Occidental and adjoining plateau. Known range from vicinity of Parral and Santa Rosalía, Chihuahua, south to Valparaiso and Hacienda San Juan Capistrano, Zacatecas; vertical range, approximately 5,000 to 7,000 feet (Hooper and Handley, Occ. Pap. Mus. Zool. Univ. Michigan No. 514, p. 22, Oct. 29, 1948).

Liomys bulleri (Thomas)*

1893. *Heteromys bulleri* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 330, April 1893.

1911. *Liomys bulleri* Goldman, North Amer. Fauna No. 34, p. 61, Sept. 7, 1911.

Type Locality.—Laguna, Sierra de Juanacatlán, Jalisco, México. *Range.*—Known only from type locality. Zonal range, Upper Sonoran.

Liomys guerrerensis Goldman†*

1911. *Liomys guerrerensis* Goldman, North Amer. Fauna No. 34, p. 62, Sept. 7, 1911.

Type Locality.—Omilteme, Guerrero, México. *Range.*—Humid, heavily forested Pacific slopes of Sierra Madre in vicinity of Omilteme and near Chilpancingo (Davis, Journ. Mamm., vol. 25, No. 4, p. 389, Dec. 12, 1944).

Superfamily CASTOROIDEA

Family CASTORIDAE (beavers)

Genus CASTOR[6] Linnaeus

1758. *Castor* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 58. (Type, *Castor fiber* Linnaeus.)

Castor canadensis canadensis Kuhl*

1820. *Castor canadensis* Kuhl, Beiträge zur Zoologie und vergleichenden Anatomie, Abth. 1, p. 64.

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[6] Beavers of western North America revised by Taylor, Univ. California Publ. Zool., vol. 12, No. 15, pp. 413–495, Mar. 20, 1916.

1884. *Castor fiber* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884.

1890. *Castor canadensis* Merriam, North Amer. Fauna No. 3, p. 59, Sept. 11, 1890.

Type Locality.—Hudson Bay. *Range.*—Originally in most wooded parts of central Canada from western Quebec, Ontario north to James Bay and Hudson Bay, eastern and northern Manitoba, central and northern Saskatchewan, northern Alberta, northeastern British Columbia, western part of Mackenzie District to Mackenzie delta, and northern Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 131, Jan. 24, 1947); and to north of Arctic Circle in lakes near Kobuk River in northwest Alaska (A. M. Bailey and Hendee, Journ. Mamm., vol. 7, No. 1, p. 20, Feb. 15, 1926); southward in Rocky Mountains to Yellowstone National Park, Wyo. (V. Bailey, General information regarding Yellowstone National Park, season of 1917, U. S. Nat. Park Service, p. 49, 1917) and through first and second prairie steppes in southeastern Saskatchewan (Soper, Journ. Mamm., vol. 27, No. 2, p. 144, May 14, 1946) into Souris (Mouse) River and also in Red River drainage of eastern North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926) p. 105, Jan. 8, 1927) and of western Minnesota.

Castor canadensis caecator Bangs*

1913. *Castor caecator* Bangs, Bull. Mus. Comp. Zool., vol. 54, p. 513, July 1913.

1942. *Castor canadensis caecator* G. M. Allen, Extinct and vanishing mammals of the western hemisphere . . . , p. 62, Dec. 11, 1942.

Type Locality.—Near Bay St. George, Newfoundland. *Range.*—Restricted to Island of Newfoundland.

Castor canadensis michiganensis V. Bailey†*

1913. *Castor canadensis michiganensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 192, Oct. 23, 1913.

Type Locality.—Tahquamenaw River (5 miles above falls), Luce County, Mich. *Range.*—In Canada, southern part of Algoma District (Pancake Bay), Ontario, east of Lake Superior (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 132, Jan. 24, 1947); Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 199, 1946); northeastern Minnesota (Cahn, Journ. Mamm., vol. 2, No. 2, p. 72, May 2, 1921); and Wisconsin.

Castor canadensis labradorensis V. Bailey and Doutt*

1942. *Castor canadensis labradorensis* V. Bailey and Doutt, Journ. Mamm., vol. 23, No. 1, p. 86, Feb. 14, 1942.

Type Locality.—Five miles above Grand Falls, Hamilton River, Labrador. *Range.*—Eastern Labrador, in valleys of Hamilton and Paradise Rivers, which drain eastward into Atlantic Ocean.

Castor canadensis acadicus V. Bailey and Doutt†*

1942. *Castor canadensis acadicus* V. Bailey and Doutt, Journ. Mamm., vol. 23, No. 1, p. 87, Feb. 14, 1942.

Type Locality.—Nepisiquit River, New Brunswick, Canada. *Range.*—New Brunswick, Nova Scotia, southern and central Quebec, north at least to Lake Mistassini (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 132, Jan. 24, 1947); south to Adirondacks in New York and Charleston in southwestern New Hampshire; formerly probably in Maine and Vermont and possibly over greater part of New York and Pennsylvania (V. Bailey and Doutt, *loc. cit.*); and formerly probably all of New England south to Long Island Sound.

Castor canadensis carolinensis Rhoads*

1898. *Castor canadensis carolinensis* Rhoads, Trans. Amer. Philos. Soc., new ser., vol. 19, p. 420, September 1898.

Type locality.—Dan River, near Danbury, Stokes County, N. C. *Range.*—Atlantic coast of North America, formerly from New Jersey and lowlands along lower Delaware, Schuylkill, and Susquehanna Rivers in eastern Pennsylvania (Rhoads, The mammals of Pennsylvania and New Jersey, . . . , pp. 73–77, 1903) southward through watersheds of Dan and upper Roanoke Rivers in Virginia (Handley and Patton, Wild mammals of Virginia, p. 159, 1947) to northern Florida; and westward through Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 276, Feb. 14, 1939), Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 68, Oct. 28, 1921), Mississippi and Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 243, Nov. 22, 1943). Reintroduced into South Carolina, Georgia, Tennessee, and Mississippi (Salyer, Journ. Mamm., vol. 27, No. 4, p. 331, Nov. 25, 1946).

Castor canadensis texensis V. Bailey†*

1905. *Castor canadensis texensis* V. Bailey, North Amer. Fauna No. 25, p. 122, Oct. 24, 1905. (See Davis, Journ. Mamm., vol. 21, No. 1, pp. 84–86, Feb. 15, 1940.)

Type Locality.—Cummings Creek, Colorado County, southeastern Texas. *Range.*—Eastern and northern Texas in drainages of Nueces, Colorado, Brazos, Trinity, and Red Rivers (V. Bailey, loc. cit.); and possibly western Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 117, July 1939).

Castor canadensis missouriensis V. Bailey†*

1919. *Castor canadensis missouriensis* V. Bailey, Journ. Mamm., vol. 1, No. 1, p. 32, Nov. 28, 1919.

Type Locality.—Apple Creek, 7 miles east of Bismarck, Burleigh County, N. Dak. *Range.*—Missouri River drainage from Kansas (Black, Kansas State Board Agric., Thirtieth Biennial Rep., 1935–1936, p. 185, 1937) and northwestern Iowa (Scott, Iowa State Coll. Journ. Sci., vol. 12, p. 73, October 1937) northward through eastern Montana and western North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 108, Jan. 8, 1927) to arid plains of third prairie steppe in southwestern Saskatchewan and southern Alberta (Soper, Journ. Mamm., vol. 27, No. 2, p. 144, May 14, 1946).

Castor canadensis concisor Warren and Hall*

1939. *Castor canadensis concisor* Warren and Hall, Journ. Mamm., vol. 20, No. 3, p. 358, Aug. 14, 1939.

Type Locality.—Monument Creek, southwest of Monument, El Paso County, Colo. *Range.*—Elevated, mountainous part of Colorado, from Gunnison River (Colorado drainage) in Mesa County, east to headwaters of Arkansas River (Mississippi drainage) in El Paso County, and north to North Platte River (Mississippi drainage) in Jackson County; known definitely from Jackson, Boulder, Jefferson, El Paso, Mesa, Delta, and Gunnison Counties, Colo.; south to Colfax County, northeastern New Mexico (Hill, Journ. Mamm., vol. 23, No. 1, p. 80, Feb. 14, 1942).

Castor canadensis duchesnei Durrant and Crane*

1948. *Castor canadensis duchesnei* Durrant and Crane, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 20, p. 413, Dec. 24, 1948.

Type Locality.—Duchesne River, 10 miles northwest of Duchesne, Duchesne County, Utah. Altitude, 5,600 feet. *Range.*—Drainage of Duchesne and White Rivers in Utah and Colorado.

Castor canadensis pallidus Durrant and Crane

1948. *Castor canadensis pallidus* Durrant and Crane, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 20, p. 409, Dec. 24, 1948.

Type Locality.—Lynn Canyon, Box Elder County, Utah. Altitude, 7,500 feet. *Range.*—Known from Raft River Mountains only.

Castor canadensis rostralis Durrant and Crane

1948. *Castor canadensis rostralis* Durrant and Crane, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 20, p. 411, Dec. 24, 1948.

Type Locality.—Red Butte Canyon, Fort Douglas, Salt Lake County, Utah. Altitude, 5,000 feet. *Range.*—Known from western streams of Wasatch Mountains; probably occurs in all streams draining westward into basin of Pleistocene Lake Bonneville.

Castor canadensis mexicanus V. Bailey†*

1913. *Castor canadensis mexicanus* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 191, Oct. 23, 1913.

Type Locality.—Ruidoso Creek, 6 miles below Ruidoso, Lincoln County, N. Mex. *Range.*—Pecos River and Rio Grande and some tributary streams in New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 213, Mar. 1, 1932); formerly on both sides of Rio Grande to Brownsville, Tex., and to below Matamoros, northeastern Tamaulipas, México; also Pecos and Devils Rivers in southwestern Texas (V. Bailey, North Amer. Fauna No. 25, p. 124, Oct. 24, 1905); recently recorded along Rio Grande from mouth of Santa Helena Canyon to mouth of Boquillas Canyon, Tex. (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 28, Aug. 7, 1942).

Castor canadensis frondator Mearns†*

1897. *Castor canadensis frondator* Mearns, Preliminary diagnoses of new mammals of the genera *Sciurus*, *Castor*, *Neotoma*, and *Sigmodon*, from the Mexican border of the United States, p. 2, March 5, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 502, Jan. 19, 1898.)

Type Locality.—Río San Pedro, northeastern Sonora, México, near monument No. 98 of the Mexican boundary. *Range.*—Río San Pedro and Río Sonora in northeastern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 50, Feb. 15, 1938); formerly Río San Pedro and Gila River Valleys in southeastern Arizona, but not native to Chiricahua Mountains in Cochise County (Cahalane, Journ. Mamm., vol. 20, No. 4, p. 431, Nov. 14, 1939); and eastward to headwaters of Gila, San Francisco and Zuni Rivers in western New Mexico

(V. Bailey, North Amer. Fauna No. 53 (December 1931), pp. 211–212, Mar. 1, 1932).

Castor canadensis repentinus Goldman†*

1932. *Castor canadensis repentinus* Goldman, Journ. Mamm., vol. 13, No. 3, p. 266, Aug. 9, 1932.

Type Locality.—Bright Angel Creek, Grand Canyon of Colorado River, Coconino County, Ariz. Altitude, 4,000 feet. *Range.*—In Nevada, probably formerly Virgin and Muddy Rivers (Hall, Mammals of Nevada, p. 488, July 1, 1946); in Arizona, vicinity of Colorado River from Grand Canyon to delta (Goldman, *loc. cit.*); in California, Colorado River from Nevada line near Needles, San Bernardino County, to Mexican border, below Fort Yuma, Imperial County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 167, Sept. 26, 1933), along Alamo River and larger distributory canals from Colorado River in Imperial Valley (Dixon, Journ. Mamm., vol. 3, No. 3, p. 140, Aug. 4, 1922); eastward to drainages of Colorado and Green Rivers south of Tavaputs Plateau in Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 291, Aug. 10, 1952).

Castor canadensis subauratus Taylor*

1912. *Castor subauratus* Taylor, Univ. California Publ. Zool., vol. 10, No. 7, p. 167, May 21, 1912.

1933. *Castor canadensis subauratus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 166, Sept. 26, 1933.

Type Locality.—Grayson, San Joaquin River, Stanislaus County, Calif. *Range.*—Lower courses of San Joaquin and Sacramento Rivers, and lower portions of larger tributaries of these main rivers, from Tulare Lake (formerly), Kings County, and from Kings River, near Sanger (formerly) and at Mendota, in Fresno County, north to Sacramento River and Butte Creek, north of Marysville Buttes, and at one time to McCloud and upper Sacramento Rivers, in Shasta County; vertical range, below 1,000 feet; zonal range, Lower and Upper Sonoran (Grinnell, loc. cit.).

Castor canadensis shastensis Taylor†*

1916. *Castor subauratus shastensis* Taylor, Univ. California Publ. Zool., vol. 12, No. 12, p. 433, Mar. 20, 1916.

1933. *Castor canadensis shastensis* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 166, Sept. 26, 1933.

Type Locality.—Cassel, on Hat Creek, near Pit River, Shasta County, Calif. *Range.*—Pit River basin in northeastern California: recorded from Pit River, above Narrows, north to Willow Creek and Steele Meadow, near Clear Lake, and east to Lassen Creek, east of Goose Lake, and to North Fork of Pit River above Alturas; vertical range, 3,000 feet (on Pit River, Shasta County) up to between 6,000 and 7,000 feet (on Lassen Creek, west slope of Warner Mountains); zonal range, chiefly Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 166, Sept. 26, 1933); in Oregon, from Thomas Creek, a small branch of Cottonwood Creek, which flows into northwestern corner of Goose Lake, and probably Klamath section, Lost River, Sprague River, and Yamsay Mountains (V. Bailey, North Amer. Fauna No. 55 (June), pp. 222–223, Aug. 29, 1936).

Castor canadensis baileyi Nelson†*

1927. *Castor canadensis baileyi* Nelson, Proc. Biol. Soc. Washington, vol. 40, p. 125, Sept. 26, 1927.

Type Locality.—Humboldt River, 4 miles above Winnemucca, Humboldt County, Nev. *Range.*—Humboldt River drainage in Nevada (Hall, Mammals of Nevada, p. 488, July 1, 1946); in southeastern Oregon, from headwaters of Blitzen River north to Malheur Lake, and northward in Silvies River and Steens Mountains drainage (V. Bailey, North Amer. Fauna No. 55 (June), p. 224, Aug. 29, 1936).

Castor canadensis taylori Davis*

1939. *Castor canadensis taylori* Davis, The Recent mammals of Idaho, p. 273, Apr. 5, 1939.

Type Locality.—Big Wood River, near Bellevue, Blaine County, Idaho. *Range.*—Snake River drainage basin in southern Idaho (Davis, loc. cit.), northern Nevada in streams tributary to Snake River drainage (Hall, Mammals of Nevada, p. 488, July 1, 1946), and possibly in western Utah (Long., Journ. Mamm., vol. 21, No. 2, p. 177, May 16, 1940).

Castor canadensis pacificus Rhoads*

1898. *Castor canadensis pacificus* Rhoads, Trans. Amer. Philos. Soc., new ser., vol. 19, p. 422, September 1898. (Regarded as valid by Taylor, Univ. California Publ. Zool., vol. 12, No. 15, p. 442, Mar. 20, 1916, and by Benson, Journ. Mamm., vol. 14, No. 4, pp. 323–324, Nov. 13, 1933; and as identical with *leucodontus* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 322, Apr. 9, 1948.)

Type Locality.—Lake Keechelus, Cascade Mountains, Kittitas County, Wash. Altitude, about 3,000 feet. *Range.*—From Rogue River Valley northward through Willamette Valley, and eastward along Columbia River and its tributaries in northern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), pp. 218–219, August 29, 1936); Washington (regarded as *leucodontus* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 322, Apr. 9, 1948), except southwest corner; northern Idaho (Rust, Journ. Mamm., vol. 27, No. 4, p. 320, Nov. 25, 1946); and an undetermined distance northward in southwestern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 133, Jan. 24, 1947).

Castor canadensis idoneus Jewett and Hall*

1940. *Castor canadensis idoneus* Jewett and Hall, Journ. Mamm., vol. 21, No. 1, p. 87, Feb. 15, 1940.

Type Locality.—Foley Creek, tributary to Nehalem River, Tillamook County, Oreg. *Range.*—Probably humid coastal area in Oregon west of Willamette drainage, but definitely known only from type locality and from Blaine, Tillamook County; in Washington, lowlands near mouth of Columbia River and also Puget Island (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 322, Apr. 9, 1948).

Castor canadensis leucodontus Gray*

1869. *Castor canadensis leucodonta* Gray, Ann. Mag. Nat. Hist., ser. 4, vol. 4, p. 293, October 1869.

1907. *Castor canadensis leucodontus* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 47, Apr. 18, 1907.

Type Locality.—Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island.

Castor canadensis sagittatus Benson*

1933. *Castor canadensis sagittatus* Benson, Journ. Mamm., vol. 14, No. 4, p. 320, Nov. 13, 1933.

Type Locality.—Indianpoint Creek, 16 miles northeast of Barkerville, British Columbia, Canada. Altitude, 3,200 feet. *Range.*—Interior of British Columbia from southern border (Newgate on Kootenay River near northwestern Montana boundary, and Meadow Creek near Yahk northeast of Montana–Idaho corner) north to Cariboo Range (Indianpoint Lake, Isaacs Lake, and other points in Barkerville region, South Murphy Lake), Finlay River (Fort Grahame, Wistaria near Burns Lake, Sinhut Lake near Vanderhoof), north to Liard River (Lower Liard Crossing) and probably parts of southeastern Yukon; intergrades with *belugae* in northwestern parts of its range and probably with *pacificus* farther south (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 133, Jan. 24, 1947); probably also in Kootenay National Forest in extreme northwestern Montana; and probably northern Idaho south to Clearwater hydrographic basin (Davis, The Recent mammals of Idaho, p. 274, Apr. 5, 1939).

Castor canadensis belugae Taylor*

1916. *Castor canadensis belugae* Taylor, Univ. California Publ. Zool., vol. 12, No. 15, p. 429, Mar. 20, 1916.

Type Locality.—Beluga River, Cook Inlet region, Alaska. *Range.*—From Cook Inlet region of Alaska south along coast to west branch of Homathko River (northeast of Bute Inlet, opposite Vancouver Island), British Columbia, Canada; intergradation toward *sagittatus* on lower Stikine River and at Anahim Lake near head of Dean Inlet (Benson, Journ. Mamm., vol. 14, No. 4, p. 324, Nov. 13, 1933). Recorded also at Stuie, near head of Bella Coola River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 132, Jan. 24, 1947).

Castor canadensis phaeus Heller*

1909. *Castor canadensis phaeus* Heller, Univ. California Publ. Zool., vol. 5, No. 2, p. 250, Feb. 18, 1909.

Type Locality.—Pleasant Bay, Admiralty Island, Alaska. *Range.*—Admiralty Island.

Suborder MYOMORPHA

Superfamily MUROIDEA

Family CRICETIDAE

Subfamily CRICETINAE

Genus ORYZOMYS[7] Baird (rice rats)

1858. *Oryzomys* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 458, July 14, 1858. (Type, *Mus palustris* Harlan.)

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[7] Revised by Goldman, North Amer. Fauna No. 43, Sept. 23, 1918.

Subgenus ORYZOMYS Baird

palustris—group

Oryzomys palustris palustris (Harlan)*

1837. *Mus palustris* Harlan, Amer. Journ. Sci., vol. 31, p. 385.
1858. *Oryzomys palustris* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857). p. 459, July 14, 1858.
1884. *Hesperomys palustris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)
1891. *Oryzomys palustris* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 215, Apr. 17, 1891.

Type Locality.—"Fast Land," near Salem, Salem County, N. J. *Range.*—Atlantic coastal areas from southern New Jersey south to northeastern Florida, thence westward through southern Georgia to Gulf coast of Alabama and Mississippi, and north through Alabama and western Tennessee to southwestern Kentucky, southern Illinois, and parts of southeastern Missouri. Vertical range from sea level up along streams to about 500 feet (rarely to 1,000 feet); zonal range mainly Lower Austral, but reaching into Upper Austral in southern New Jersey, southeastern Kentucky, and southeastern Missouri (Marble Hill). (See also McLaughlin and Robertson, Nat. Hist. Misc. Chicago Acad. Sci. No. 80, pp. 1–2, Mar. 30, 1951.)

Oryzomys palustris natator Chapman*

1893. *Oryzomys palustris natator* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 44, Mar. 17, 1893.

Type Locality.—Gainesville, Alachua County, Fla. *Range.*—Central Florida, north of Everglades. Zonal range, Austroriparian.

Oryzomys palustris coloratus Bangs*

1898. *Oryzomys palustris coloratus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 189, March 1898.
1901. *Oryzomys natator floridanus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 277, July 26, 1901. (Everglade, Collier County, Fla.)

Type Locality.—Cape Sable, Monroe County, Fla. *Range.*—Tropical southern Florida, north to Lake Okeechobee.

Oryzomys palustris texensis J. A. Allen*

1894. *Oryzomys palustris texensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 177, May 31, 1894.

Type Locality.—Rockport, Aransas County, Tex. *Range.*—From Corpus Christi Bay north and east along Gulf coast of Texas and Louisiana to delta of Mississippi thence north in Mississippi Valley to southeastern Missouri; general range reaching southeastern Kansas, probably by way of Arkansas River Valley through Oklahoma (McCurtain County, Okla.; Whitaker, Journ. Mamm., vol. 18, No. 1, p. 102, Feb. 11, 1937). Vertical range in Austroriparian Zone, mainly below 500 feet but extending up to about 1,000 feet in Kansas.

Oryzomys couesi couesi (Alston)*

1877. *Hesperomys couesi* Alston, Proc. Zool. Soc. London, 1876, pt. 4, p. 756, April 1877.

1884. *Hesperomys couesi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)

1893. *O[ryzomys] couesi* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 403, May 1893.

1897. *Oryzomys jalapae* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 206, June 16, 1897. (Jalapa, Veracruz, México.)

1901. *Oryzomys jalapae rufinus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 285, July 26, 1901. (Catemaco, Veracruz, México.)

1901. *Oryzomys teapensis* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 286, July 26, 1901. (Teapa, Tabasco, México.)

1901. *Oryzomys goldmani* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 288, July 26, 1901. (Coatzacoalcos, Veracruz, México.)

1904. *Oryzomys jalapae apatelius* Elliot, Field Columb. Mus. Publ. 90, Zool. Ser. vol. 3, p. 266, Mar. 7, 1904. (San Carlos, Veracruz, México.)

1910. *Oryzomys richardsoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 99, Apr. 30, 1910. (Peña Blanca, Rivas, Nicaragua.)

Type Locality.—Cobán, Alta Verapaz, Guatemala (see Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 403, May 1893). *Range.*—From northern Veracruz southeastward through eastern Puebla, eastern Oaxaca, northern and extreme southern Chiapas, Tabasco, Campeche, Yucatán, and Quintana Roo, in México, Guatemala, Honduras, and Nicaragua, to northwestern Costa Rica. Vertical range from sea level to about 5,000 feet, mainly in Humid Lower Tropical Zone.

Oryzomys couesi zygomaticus Merriam†*

1901. *Oryzomys zygomaticus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 285, July 26, 1901.

1918. *Oryzomys couesi zygomaticus* Goldman, North Amer. Fauna No. 43, p. 32, Sept. 23, 1918.

Type Locality.—Nentón, Huehuetenango, Guatemala. *Range.*—Known only from Río Chiapas Valley in southwestern Guatemala and south-central Chiapas, México. Zonal range, Arid Lower Tropical.

Oryzomys couesi pinicola Murie

1932. *Oryzomys couesi pinicola* Murie, Occ. Pap. Mus. Zool. Univ. Michigan No. 245, p. 1, June 9, 1932.

Type Locality.—A pine ridge, 12 miles south of El Cayo, British Honduras. Altitude about 1,500 feet. *Range.*—Known from type locality only.

Oryzomys couesi richmondi Merriam†*

1901. *Oryzomys richmondi* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 284, July 26, 1901.

1918. *Oryzomys couesi richmondi* Goldman, North Amer. Fauna No. 43, p. 32, Sept. 23, 1918.

Type Locality.—Escondido River (50 miles above Bluefields), Zelaya, Nicaragua. *Range.*—Lower river valleys of eastern Nicaragua. Zonal range, Humid Lower Tropical.

Oryzomys couesi regillus Goldman†*

1915. *Oryzomys couesi regillus* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 129, June 29, 1915.

Type Locality.—Los Reyes, Michoacán, México. *Range.*—Plateau region of northwestern Michoacán. Vertical range from about 3,000 to 4,000 feet, mainly in Arid Lower Tropical Zone.

Oryzomys couesi albiventer Merriam†*

1901. *Oryzomys albiventer* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 279, July 26, 1901.

1903. *Oryzomys molestus* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 145, Mar. 20, 1903. (Ocotlán, Jalisco, México.)

1918. *Oryzomys couesi albiventer* Goldman, North Amer. Fauna No. 43, p. 38, Sept. 23, 1918.

Type Locality.—Ameca, Jalisco, México. Altitude, 4,000 feet. *Range.*—River valleys of plateau region in central Jalisco. Vertical range from about 4,000 to 5,000 feet, mainly in Lower Sonoran Zone.

Oryzomys couesi mexicanus J. A. Allen*

1897. *Oryzomys mexicanus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 52, Mar. 15, 1897.

1897. *Oryzomys bulleri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 53, Mar. 15, 1897. (Valle de Banderas, Nayarit, México.)

1901. *Oryzomys rufus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 287, July 26, 1901. (Santiago, Nayarit, México.)

1918. *Oryzomys couesi mexicanus* Goldman, North Amer. Fauna No. 43, p. 33, Sept. 23, 1918.

Type Locality.—Hacienda San Marcos, Tonila, Jalisco, México. Altitude, 3,500 feet. *Range.*—Pacific coastal plains and basal mountain slopes from southern Sinaloa to southeastern Oaxaca. Vertical range from sea level to about 1,000 feet (rarely to 3,500 feet), mainly in Arid Lower Tropical Zone.

Oryzomys couesi aztecus Merriam†*

1901. *Oryzomys crinitus aztecus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 282, July 26, 1901.

1918. *Oryzomys couesi aztecus* Goldman, North Amer. Fauna No. 43, p. 35, Sept. 23, 1918.

Type Locality.—Yautepec, Morelos, México. *Range.*—Interior river valleys of Morelos, southern Puebla, northern Oaxaca, and northeastern Guerrero. Vertical range from about 3,000 to at least 4,000 feet in Arid Lower Tropical Zone.

Oryzomys couesi crinitus Merriam†*

1901. *Oryzomys crinitus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 281, July 26, 1901.

1918. *Oryzomys couesi crinitus* Goldman, North Amer. Fauna No. 43, p. 36, Sept. 23, 1918.

Type Locality.—Tlalpan, Distrito Federal, México. *Range.*—Known only from type locality, at about 7,500 feet altitude in Valley of México. Zonal range, Upper Sonoran. Tentatively recorded near city of Tlaxcala, Tlaxcala (Davis, Journ. Mamm., vol. 25, No. 4, p. 398, Dec. 12, 1944).

Oryzomys couesi lambi Burt

1934. *Oryzomys couesi lambi* Burt, Proc. Biol. Soc. Washington, vol. 47, p. 107, June 13, 1934.

Type Locality.—San José de Guaymas, Sonora, México. *Range.*—Probably coastal area from San José de Guaymas south into Sinaloa (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 60, Feb. 15, 1938).

Oryzomys couesi peragrus Merriam†*

1901. *Oryzomys mexicanus peragrus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 283, July 26, 1901.

1918. *Oryzomys couesi peragrus* Goldman, North Amer. Fauna No. 43, p. 39, Sept. 23, 1918.

Type Locality.—Río Verde, San Luis Potosí, México. *Range.*—Known only from type locality, at about 3,000 feet altitude on Río Verde, in southern San Luis Potosí. Zonal range, Lower Sonoran.

Oryzomys couesi aquaticus J. A. Allen*

1891. *Oryzomys aquaticus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 289, June 30, 1891.

1918. *Oryzomys couesi aquaticus* Goldman, North Amer. Fauna No. 43, p. 39, Sept. 23, 1918.

Type Locality.—Brownsville, Cameron County, Tex. *Range.*—Rio Grande Valley, from Camargo, Tamaulipas, to Gulf coast near Brownsville, Tex. Vertical range from sea level to about 300 feet in Lower Sonoran Zone. Recorded also near Montemorelos and General Terán, Nuevo León (Davis, Journ. Mamm., vol. 25, No. 4, p. 398, Dec. 12, 1944; Hooper, Journ. Mamm., vol. 28, No. 1, p. 53, Feb. 17, 1947).

Oryzomys peninsulae Thomas*

1897. *Oryzomys peninsulae* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 20, p. 548, December 1897.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Known only from very limited marshy areas near sea level in extreme southern Baja California. Zonal range, Arid Lower Tropical.

Oryzomys fulgens Thomas

1893. *Oryzomys fulgens* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 403, May 1893.

Type Locality.—"México." Probably in or near Valley of México. *Range.*—Range unknown.

Oryzomys nelsoni Merriam†*

1898. *Oryzomys nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 15, Jan. 27, 1898.

Type Locality.—María Madre Island, Tres Marías Islands, Nayarit, México. *Range.*—Known only from María Madre Island, where it inhabits moist places on upper slopes at about 800 feet altitude. Zonal range, Arid Lower Tropical.

Oryzomys cozumelae Merriam†*

1901. *Oryzomys cozumelae* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 103, July 19, 1901; Proc. Washington Acad. Sci., vol. 3, p. 280, July 26, 1901.

Type Locality.—Cozumel Island, Quintana Roo, México. *Range.*—Known from type locality only.

Oryzomys aphrastus Harris

1932. *Oryzomys aphrastus* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 248, p. 5, Aug. 4, 1932.

Type Locality.—Joquin de Dota [=San Joaquín de Dota], San José, Costa Rica. Altitude, about 4,000 feet. *Range.*—Known only from type locality in Pacific rain forest of Costa Rica, southeast of Santa María de Dota.

Oryzomys azuerensis Bole

1937. *Oryzomys azuerensis* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 165, Aug. 31, 1937.

Type Locality.—Paracoté, 1½ miles south of mouth of Río Angulo, Mariato-Suay Lands, Veraguas, Panamá. Altitude, sea level.

Oryzomys gatunensis Goldman†*

1912. *Oryzomys gatunensis* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 7, Feb. 19, 1912.

Type Locality.—Gatún, Canal Zone, Panamá. *Range.*—Known only from type locality, near sea level. Zonal range, Humid Lower Tropical.

Oryzomys antillarum Thomas*

1898. *Oryzomys antillarum* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 177, February 1898.

Type Locality.—Jamaica. *Range.*—Known from Jamaica only.

melanotis—group

Oryzomys melanotis melanotis Thomas*

1893. *Oryzomys melanotis* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 11, p. 404, May 1893.

Type Locality.—Mineral San Sebastián, Jalisco, México. *Range.*—Coastal plains and basal mountain slopes in southern Sinaloa, Nayarit, and Jalisco; vertical range from sea level to about 3,000 feet. Zonal range, Arid Lower Tropical.

Oryzomys melanotis colimensis Goldman†*

1918. *Oryzomys melanotis colimensis* Goldman, North Amer. Fauna No. 43, p. 51, Sept. 23, 1918.

Type Locality.—Armería, Colima, México. *Range.*—Forested coastal plains and basal mountain slopes in State of Colima. Vertical range from sea level to 1,500 feet; zonal range, Arid Lower Tropical.

Oryzomys rostratus rostratus Merriam†*

1901. *Oryzomys rostratus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 293, July 26, 1901.

Type Locality.—Metlatoyuca, Puebla, México. *Range.*—Forested coastal plains and basal mountain slopes in southeastern Tamaulipas, northern Puebla, Veracruz, and northeastern Oaxaca. Vertical range from sea level to about 1,500 feet; zonal range, Arid and Humid Lower Tropical.

Oryzomys rostratus carrorum Lawrence

1947. *Oryzomys rostratus carrorum* Lawrence, Proc. New England Zool. Club, vol. 24, p. 101, May 29, 1947.

Type Locality.—Rancho Santa Ana, about 8 miles southwest of Padilla, Río Soto la Marina, Tamaulipas, México. *Range.*—Known from type locality only.

Oryzomys rostratus megadon Merriam†*

1901. *Oryzomys rostratus megadon* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 294, July 26, 1901.

Type Locality.—Teapa, Tabasco, México. *Range.*—Heavily forested coastal plains and lower mountain slopes in Tabasco and Campeche. Vertical range from sea level to at least 500 feet; zonal range, Humid Lower Tropical.

Oryzomys rostratus yucatanensis Merriam†*

1901. *Oryzomys yucatanensis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 294, July 26, 1901.

1918. *Oryzomys rostratus yucatanensis* Goldman, North Amer. Fauna No. 43, p. 55, Sept. 23, 1918.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Forested lowlands of Yucatán and Quintana Roo. Zonal range, Arid Lower Tropical.

alfaroi—group

Oryzomys alfaroi alfaroi (J. A. Allen)*

1891. *Hesperomys* (*Oryzomys*) *alfaroi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 214, Apr. 17, 1891.

1894. *Oryzomys alfaroi* J. A. Allen, Abstr. Proc. Linn. Soc. New York, 1893–1894, p. 36, July 20, 1894.

1908. *Oryzomys alfaroi incertus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 655, Oct. 13, 1908. (Río Grande, Zelaya, Nicaragua.)

Type Locality.—San Carlos, Alajuela, Costa Rica. *Range.*—Heavily forested mountainous portions of Honduras, Nicaragua, Costa Rica, and western Panamá. Vertical range from about 1,000 to 4,000 feet; zonal range, mainly Humid Lower Tropical.

Oryzomys alfaroi dariensis Goldman†*

1915. *Oryzomys alfaroi dariensis* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 128, June 29, 1915.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Heavily forested mountain slopes in eastern Panamá at 2,000 feet altitude, and probably adjacent portions of Colombia. Zonal range, Humid Lower Tropical.

Oryzomys alfaroi angusticeps Merriam†*

1901. *Oryzomys angusticeps* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 292, July 26, 1901.

1918. *Oryzomys alfaroi angusticeps* Goldman, North Amer. Fauna No. 43, p. 62, Sept. 23, 1918.

Type Locality.—Volcán Santa Maria, Quezaltenango, Guatemala. Altitude, 9,000 feet. *Range.*—Heavily forested slopes of high mountains in southwestern Guatemala and central southern Chiapas. Vertical range from about 8,000 to 9,000 feet.

Oryzomys alfaroi rhabdops Merriam†*

1901. *Oryzomys rhabdops* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 291, July 26, 1901.

Type Locality.—Calel, Quezaltenango, Guatemala. Altitude, 10,000 feet. *Range.*—Known only from type locality, at about 10,000 feet altitude on upper slope of high mountains in southwestern Guatemala.

Oryzomys alfaroi caudatus Merriam†*

1901. *Oryzomys chapmani caudatus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 289, July 26, 1901.

1918. *Oryzomys alfaroi caudatus* Goldman, North Amer. Fauna No. 43, p. 66, Sept. 23, 1918.

Type Locality.—Comaltepec, Oaxaca, México. *Range.*—Mountains of northeastern Oaxaca. Vertical range from 3,500 to 6,500 feet; zonal range, Humid Upper Tropical.

Oryzomys alfaroi palatinus Merriam†*

1901. *Oryzomys palatinus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 290, July 26, 1901.

1918. *Oryzomys alfaroi palatinus* Goldman, North Amer. Fauna No. 43, p. 65, Sept. 23, 1918.

Type Locality.—Teapa, Tabasco, México. *Range.*—Forested mountain slopes in southern Tabasco and northwestern Chiapas. Known vertical range from about 3,000 to 3,500 feet; zonal range, Humid Upper Tropical.

Oryzomys alfaroi hylocetes Merriam†*

1901. *Oryzomys hylocetes* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 291, July 26, 1901.

1949. *Oryzomys alfaroi hylocetes* Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 19, No. 2, p. 518, June 30, 1949.

Type Locality.—Chicharras, Chiapas, México. *Range.*—Heavily forested Pacific slope, at 3,500 feet, of mountains along continental divide in extreme southern Chiapas, and doubtless adjacent portions of Guatemala. Zonal range, Humid Upper Tropical.

Oryzomys alfaroi saturatior Merriam†*

1901. *Oryzomys chapmani saturatior* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 290, July 26, 1901.

1918. *Oryzomys alfaroi saturatior* Goldman, North Amer. Fauna No. 43, p. 66, Sept. 23, 1918.

Type Locality.—Tumbalá, Chiapas, México. *Range.*—Forested northern slope of mountains of northern Chiapas, at 5,000 feet altitude; limits of range unknown. Zonal range, Humid Upper Tropical.

Oryzomys alfaroi chapmani Thomas*

1898. *Oryzomys chapmani* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 179, February 1898.

1918. *Oryzomys alfaroi chapmani* Goldman, North Amer. Fauna No. 43, p. 67, Sept. 23, 1918.

Type Locality.—Jalapa, Veracruz, México. *Range.*—Forested eastern slopes of Méxican Plateau in central Veracruz. Known vertical range from 4,400 to 6,000 feet; zonal range, Humid Upper Tropical.

Oryzomys alfaroi dilutior Merriam†*

1901. *Oryzomys chapmani dilutior* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 290, July 26, 1901.

1918. *Oryzomys alfaroi dilutior* Goldman, North Amer. Fauna No. 43, p. 68, Sept. 23, 1918.

Type Locality.—Huauchinango, Puebla, México. *Range.*—Eastern slope of Mexican Plateau at 5,000 feet altitude in northern Puebla; limits of range unknown. Zonal range, Humid Upper Tropical.

Orzomys alfaroi huastecae Dalquest*

1951. *Oryzomys alfaroi huastecae* Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 363, Nov. 14, 1951.

Type Locality.—Ten kilometers east of Platanito, San Luis Potosí, México. *Range.*—Tropical eastern slopes of Sierra Madre Oriental in eastern San Luis Potosí.

Oryzomys guerrerensis Goldman†*

1915. *Oryzomys guerrerensis* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 127, June 29, 1915.

Type Locality.—Omilteme, Guerrero, México. *Range.*—Forested Pacific slope of Sierra Madre in Guerrero and Oaxaca. Vertical range from 3,000 to about 8,000 feet; zonal range, Humid Upper Tropical.

talamancae—group

Oryzomys talamancae talamancae J. A. Allen†*

1891. *Oryzomys talamancae* J. A. Allen, Proc. U. S. Nat. Mus., vol. 14, p. 193, July 24, 1891.

1901. *Oryzomys panamensis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 252, September 1901. (City of Panamá, Panamá.)

1946. *Oryzomys talamancae talamancae* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 392, Dec. 31, 1946.

Type Locality.—Talamanca, Limón, Costa Rica. *Range.*—Forested regions from foothills in eastern Costa Rica to Pacific coast, eastward through Panamá to near Colombian frontier; zonal range, Tropical (Goodwin, loc. cit.).

Oryzomys talamancae carrikeri J. A. Allen

1908. *Oryzomys carrikeri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 656, Oct. 13, 1908.

1946. *Oryzomys talamancae carrikeri* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 392, Dec. 31, 1946.

Type Locality.—Banks of Río Sicsola [=Sixaola], between Cuabre and mouth of Río Sixaola, Limón, Costa Rica. *Range.*—Known from type locality only, in low coastal regions of Limón Province.

bombycinus—group

Oryzomys bombycinus bombycinus Goldman†*

1912. *Oryzomys bombycinus* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 6, Feb. 19, 1912.

Type Locality.—Cerro Azul, near headwaters of Chagres River, Panamá, Panamá. Altitude, 2,500 feet. *Range.*—Mountains of east-central Panamá. Vertical range from 1,000 to 3,000 feet; zonal range, Humid Lower Tropical.

Oryzomys bombycinus orinus Pearson

1939. *Oryzomys bombycinus orinus* Pearson, Not. Naturae Acad. Nat. Sci. Philadelphia, No. 6, p. 2, June 8, 1939.

Type Locality.—Mount Pirri, near Río Limón, Darién, eastern Panamá.

Oryzomys bombycinus alleni Goldman

1915. *Oryzomys nitidus alleni* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 128, June 29, 1915.

1918. *Oryzomys bombycinus alleni* Goldman, North Amer. Fauna No. 43, p. 78, Sept. 23, 1918.

Type Locality.—Tuís, about 20 miles east of Cartago, Cartago, Costa Rica. Altitude, 2,250 feet. *Range.*—Mountainous portions of northeastern Costa Rica. Vertical range from 800 to 3,000 feet; zonal range, Humid Lower Tropical.

devius—group

Oryzomys devius Bangs*

1902. *Oryzomys devius* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 34, April 1902.

Type Locality.—Bóquete, Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 5,000 feet. *Range.*—Forested slopes of high mountains in central Costa Rica and western Panamá. Vertical range from 4,000 to at least 5,000 feet; zonal range, Humid Upper Tropical.

Oryzomys pirrensis Goldman†*

1913. *Oryzomys pirrensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 5, Feb. 28, 1913.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 4,500 feet. *Range.*—Steep, heavily forested slopes of high mountains at 4,500 feet altitude in eastern Panamá, and probably adjacent portions of Colombia. Zonal range, Humid Upper Tropical.

tectus—group

Oryzomys tectus tectus Thomas*

1901. *Oryzomys tectus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 251, September 1901.

Type Locality.—Bogavo [=Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. Altitude, about 800 feet. *Range.*—Pacific slope of western Panamá and southern Costa Rica at about 800 feet altitude. Limits of vertical range unknown; zonal range, Arid Lower Tropical.

Oryzomys tectus frontalis Goldman†*

1912. *Oryzomys frontalis* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 6, Feb. 19, 1912.

1918. *Oryzomys tectus frontalis* Goldman, North Amer. Fauna No. 43, p. 85, Sept. 23, 1918.

Type Locality.—Corozal, Canal Zone, Panamá. Altitude, 100 feet. *Range.*—Forested Pacific slope of Panamá from Canal Zone to near Colombian frontier, and probably adjacent Colombian territory. Vertical range from sea level to about 2,000 feet; zonal range, Arid and Humid Lower Tropical.

Oryzomys victus Thomas

1898. *Oryzomys victus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 178, February 1898. (Not examined by, and group association not determined by, Goldman, North Amer. Fauna No. 43, p. 16, Sept. 23, 1918.)

Type Locality.—St. Vincent, Lesser Antilles. *Range.*—St. Vincent.

Subgenus OLIGORYZOMYS Bangs

1900. *Oligoryzomys* Bangs, Proc. New England Zool. Club, vol. 1, p. 94, Feb. 23, 1900. (Type, *Oryzomys navus* Bangs.)

Oryzomys fulvescens fulvescens (Saussure)*

1860. *H[esperomys] fulvescens* Saussure, Rev. Mag. Zool. Paris, ser. 2, vol. 12, p. 102, March 1860.

1897. *Oryzomys fulvescens* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 204, June 16, 1897.

Type Locality.—State of Veracruz, México. *Range.*—Southern Tamaulipas, eastern San Luis Potosí (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 7, July 10, 1950), Veracruz, Hidalgo, Puebla (Hooper, Proc. Biol. Soc. Washington, vol. 65, p. 24, Jan. 29, 1952), eastern Oaxaca, Atlantic slopes of Chiapas, and east through central Guatemala to eastern Honduras. Vertical range from near sea level to about 5,500 feet; zonal range, mainly Arid and Humid Lower Tropical.

Oryzomys fulvescens engraciae Osgood

1945. *Oryzomys fulvescens engraciae* Osgood, Journ. Mamm., vol. 26, No. 3 (August), p. 300, Nov. 14, 1945.

Type Locality.—Hacienda Santa Engracia, northwest of Ciudad Victoria, Tamaulipas, México. *Range.*—Recorded also at 20 kilometers northwest of General Terán, Nuevo Léon (Hooper, Journ. Mamm., vol. 28, No. 1, p. 53, Feb. 17, 1947).

Oryzomys fulvescens pacificus Hooper

1952. *Oryzomys fulvescens pacificus* Hooper, Proc. Biol. Soc. Washington, vol. 65, p. 23, Jan. 29, 1952.

Type Locality.—Mapastepec, Chiapas, México. *Range.*—Pacific coastal lowlands of Chiapas and probably of western Guatemala. Known geographic range from Arriaga southeast to Mapastepec. Known vertical range from approximately 50 feet at Pijijiapan to approximately 300 feet at Arriaga.

Oryzomys fulvescens lenis Goldman†*

1915. *Oryzomys fulvescens lenis* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 130, June 29, 1915.

Type Locality.—Los Reyes, Michoacán, México. *Range.*—From semi-arid valleys (Villa Flores and Prusia) in central Chiapas, across southern part (at least) of Isthmus of Tehuantepec, and thence northward on Pacific lowlands to vicinity of Ixtlán del Río and Santa Isabel in southern Nayarit (Hooper, Proc. Biol. Soc. Washington, vol. 65, p. 23, Jan. 29, 1952). Vertical range from near sea level to about 3,000 feet; zonal range, mainly Arid Lower Tropical.

Oryzomys fulvescens mayensis Goldman†*

1918. *Oryzomys fulvescens mayensis* Goldman, North Amer. Fauna No. 43, p. 92, Sept. 23, 1918.

Type Locality.—Apazote (near Yohaltún), Campeche, México. Altitude, 200 feet. *Range.*—Peninsula of Yucatán and Campeche. Vertical range from near sea level to about 300 feet; zonal range, Arid Lower Tropical.

Oryzomys fulvescens costaricensis J. A. Allen*

1893. *Oryzomys costaricensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 239, Sept. 22, 1893.

1918. *Oryzomys fulvescens costaricensis* Goldman, North Amer. Fauna No. 43, p. 92, Sept. 23, 1918.

Type Locality.—El General, Puntarenas, Costa Rica. Altitude, 2,150 feet. *Range.*—Pacific Coast region of western Panamá and western Costa Rica; vertical range from near sea level to at least 3,000 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 395, Dec. 31, 1946).

Oryzomys fulvescens creper Goodwin*

1945. *Oryzomys fulvescens creper* Goodwin, Amer. Mus. Nov., No. 1293, p. 2, July 20, 1945.

Type Locality.—Volcán Irazú, Cartago, Costa Rica. Altitude, 9,400 feet. *Range.*—Highlands of central Costa Rica at elevations above 4,000 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 396, Dec. 31, 1946).

Oryzomys fulvescens reventazoni Goodwin*

1945. *Oryzomys fulvescens reventazoni* Goodwin, Amer. Mus. Nov. No. 1293, p. 3, July 20, 1945.

Type Locality.—Santa Teresa Peralta, Cartago, Costa Rica, a small town 3,100 feet in elevation above Peralta. *Range.*—Caribbean side of Costa Rica at low elevation (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 397, Dec. 31, 1946).

Oryzomys fulvescens nicaraguae J. A. Allen

1910. *Oryzomys* (*Oligoryzomys*) *nicaraguae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 100, Apr. 30, 1910.

1946. *Oryzomys fulvescens nicaraguae* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 397, Dec. 31, 1946.

Type Locality.—Vijagua [=Bijagua], Boaco, Nicaragua. *Range.*—Nicaragua and north to southern Honduras and south, probably to extreme northern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 397, Dec. 31, 1946).

Oryzomys fulvescens vegetus Bangs*

1902. *Oryzomys* (*Oligoryzomys*) *vegetus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 35, April 1902.

1918. *Oryzomys fulvescens vegetus* Goldman, North Amer. Fauna No. 43, p. 93, Sept. 23, 1918.

Type Locality.—Bóquete, Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 4,000 feet. *Range.*—Known from vicinity of type locality only. Zonal range, Upper Tropical.

Subgenus MELANOMYS Thomas

1902. *Melanomys* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 10, p. 248, September 1902. (Type, *Oryzomys phaeopus* Thomas.)

Oryzomys caliginosus idoneus Goldman†*

1912. *Oryzomys idoneus* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 5, Feb. 19, 1912.

1918. *Oryzomys caliginosus idoneus* Goldman, North Amer. Fauna No. 43, p. 96, Sept. 23, 1918.

Type Locality.—Cerro Azul, near headwaters of Chagres River, Panamá, Panamá. Altitude, 2,500 feet. *Range.*—Heavily forested mountain slopes in eastern Panamá. Known vertical range from 1,800 to 2,800 feet; zonal range, Humid Lower Tropical.

Oryzomys caliginosus chrysomelas J. A. Allen*

1897. *Oryzomys chrysomelas* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 37, March 11, 1897.

1918. *Oryzomys caliginosus chrysomelas* Goldman, North Amer. Fauna No. 43, p. 97, Sept. 23, 1918.

Type Locality.—Suerre, a finca near Jiménez, Limón, Costa Rica. Altitude, 1,500 feet. *Range.*—Western Panamá, Costa Rica, and north to northern Nicaragua. Vertical range from near sea level to about 3,000 feet; zonal range, mainly Humid Lower Tropical.

Genus OECOMYS Thomas

1906. *Oecomys* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 18, p. 444, December 1906. (Type, *Rhipidomys benevolens* Thomas. Regarded as a subgenus by Ellerman, The families and genera of living rodents, vol. 2, pp. 340, 342, 357, Mar. 21, 1941.)

Oecomys endersi Goldman

1933. *Oecomys endersi* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 11, p. 525, Nov. 15, 1933.

Type Locality.—Barro Colorado Island, Canal Zone, Panamá. *Range*—Known from type locality only.

Oecomys trabeatus G. M. Allen and Barbour

1923. *Oecomys trabeatus* G. M. Allen and Barbour, Bull. Mus. Comp. Zool., vol. 65, p. 262, February 1923.

Type Locality.—Río Jesucito, Darién, eastern Panamá. *Range.*—Known from type locality only.

Genus MEGALOMYS[8] Trouessart

1881. *Megalomys* Trouessart, Le Naturaliste, vol. 1, p. 357, Feb. 1, 1881. (Type, *Mus pilorides* Desmarest. According to Major, Ann. Mag. Nat. Hist., ser. 7, vol. 7, p. 205, February 1901, this genus is not distinguishable from *Oryzomys*.)

1902. *Megalomys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 21, Feb. 1, 1902.

Megalomys audreyae Hopwood

1904. [*Megalomys*] *majori* Trouessart, Catalogus Mammalium . . . Suppl., fasc. 2, p. 415. (*Nomen nudum.*)

1926. *Megalomys audreyae* Hopwood, Ann. Mag. Nat. Hist., ser. 9, vol. 17, p. 329, March 1926.

Type Locality.—Cave on island of Barbuda, Lesser Antilles. (Extinct.)

Megalomys desmarestii (Fischer) *

1829. *M*[*us*] *desmarestii* Fischer, Synopsis Mammalium, p. 316.

1884. *Hesperomys pilorides* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1902. *Megalomys desmarestii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 21, Feb. 1, 1902.

Type Locality.—Martinique, Lesser Antilles. *Range.*—(Extinct?)

Megalomys luciae (Major)

1901. *Oryzomys luciae* Major, Ann. Mag. Nat. Hist., ser. 7, vol. 7, p. 206, February 1901.

1905. [*Megalomys*] *luciae* Trouessart, Catalogus Mammalium . . . Suppl., fasc. 2, p. 415.

Type Locality.—St. Lucia, Lesser Antilles. (Extinct?)

Genus NEACOMYS Thomas

1900. *Neacomys* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 153, January 1900. (Type, *Hesperomys spinosus* Thomas.)

Neacomys pictus Goldman†*

1912. *Neacomys pictus* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 6, Sept. 20, 1912.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 1,800 feet. *Range.*—Known from type locality and Tacarcuna, Panamá (Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 369, June 9, 1916).

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[8] On account of the existence of the earlier name *Megamys* (Laurillard, 1848) applied to another genus, *Megalomys* has been replaced by *Moschomys* Trouessart (Ann. Mag. Nat. Hist., ser. 7 vol. 11, p. 388, April 1903; not of Billberg, 1828) and *Moschophoromys* Elliot (Field Columb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 270, Mar. 7, 1904). This is not in accordance with the provisions of the International Code of Zoological Nomenclature. See art. 36, with accompanying recommendation; also Opinion 25 of the International Commission of Zoological Nomenclature (Smithsonian Inst. Spec. Publ. 1938, pp. 59–61, July 1910). The name *Megalomus* (Hall, 1852) differs in etymology as well as in form.

Genus NECTOMYS[9] Peters

1861. *Nectomys* Peters, Abhandl. Preuss. Akad. Wiss. Berlin, 1860, p. 151. (Type, *Mus squamipes* Lichtenstein.)

Subgenus SIGMODONTOMYS J. A. Allen

1897. *Sigmodontomys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 38, Mar. 11, 1897. (Type, *Sigmodontomys alfari* J. A. Allen. See Goldman, Proc. Biol. Soc. Washington, vol. 29, p. 127, June 6, 1916.)

Nectomys alfari alfari (J. A. Allen) *

1897. *Sigmodontomys alfari* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 39, Mar. 11, 1897.

1908. *Oryzomys ochraceus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 655, Oct. 13, 1908. (Río Grande, Zelaya, Nicaragua.)

1913. *Nectomys alfari alfari* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 7, Feb. 28, 1913.

Type Locality.—Jiménez, upper Río Jiménez, Limón, Costa Rica. Altitude, 700 feet. *Range.*—Atlantic drainage areas of Nicaragua and Costa Rica (Hershkovitz, Univ. Michigan Mus. Zool. Misc. Publ. 58, p. 75, Jan. 4, 1944).

Nectomys alfari efficax Goldman†*

1913. *Nectomys alfari efficax* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 7, Feb. 28, 1913.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 1,800 feet. *Range.*—Known only from northwestern slope of Serrania del Darién, Panamá (Hershkovitz, Univ. Michigan Mus. Zool. Misc. Publ. 58, p. 76, Jan. 4, 1944).

INCERTAE SEDIS[10]

Nectomys dimidiatus Thomas

1905. *Nectomys dimidiatus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 15, p. 586, June 1905.

Type Locality.—Río Escondido, 7 miles below Rama, Zelaya, Nicaragua. *Range.*—Known from type locality only.

Genus RHIPIDOMYS Tschudi

1844. *Rhipidomys* Tschudi, Arch. Naturg., Jahrg. 10, vol. 1, p. 252. (Type, *Hesperomys leucodactylus* Tschudi.)

Rhipidomys scandens Goldman†*

1913. *Rhipidomys scandens* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 8, Feb. 28, 1913.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 5,000 feet. *Range.*—Known from type locality only.

Genus TYLOMYS Peters

1866. *Tylomys* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1866, p. 404. (Type, *Hesperomys* (*Tylomys*) *nudicaudus* Peters.)

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[9] Revised by Hershkovitz, Univ. Michigan Mus. Zool. Misc. Publ. 58, pp. 1–88, Jan. 4, 1944.

[10] See Hershkovitz, Univ. Michigan Mus. Zool. Misc. Publ. 58, p. 80, Jan. 4, 1944.

Tylomys gymnurus Villa

1941. *Tylomis* [sic] *gymnurus* Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 12, No. 2, p. 763, Nov. 18, 1941.

Type Locality.—Presidio, Veracruz, México. *Range.*—Known from type locality only.

Tylomys bullaris Merriam†*

1901. *Tylomys bullaris* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 561, Nov. 29, 1901.

Type Locality.—Tuxtla, Chiapas, México. *Range.*—Known from type locality only.

Tylomys tumbalensis Merriam†*

1901. *Tylomys tumbalensis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 560, Nov. 29, 1901.

Type Locality.—Tumbalá, Chiapas, México. *Range.*—Recorded also at Mountain Pine Ridge, western British Honduras (A. Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 26, July 15, 1935).

Tylomys nudicaudus (Peters)*

1866. *Hesperomys* (*Tylomys*) *nudicaudus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1866, p. 404, pl. 1, figs. 1–4.

1884. *Hesperomys nudicaudus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1897. [*Tylomys*] *nudicaudus* Trouessart, Catalogus Mammalium . . ., fasc. 3, p. 520.

Type Locality.—Guatemala. (La Primavera, altitude 3,200 feet, about 10 miles southwest of Cobán, Alta Verapaz, regarded as probable type locality by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 48, Dec. 12, 1934). *Range.*—Central Guatemala and probably northern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 166, May 29, 1942).

Tylomys watsoni Thomas*

1899. *Tylomys watsoni* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 4, p. 278, October 1899.

Type Locality.—Bogava [Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 800 feet. *Range.*—Recorded also at Boquerón, Bóquete, and Cerro Brujo, eastern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 91, Apr. 26, 1920); and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 399, Dec. 31, 1946).

Tylomys panamensis (Gray)*

1873. *Neomys panamensis* Gray, Ann. Mag. Nat. Hist., ser. 4, vol. 12, p. 417, November 1873.

1884. *Hesperomys panamensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1897. [*Tylomys*] *panamensis* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 520.

Type Locality.—Panamá. *Range.*—Recorded at Cana, Darién, eastern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 90, Apr. 26, 1920).

Tylomys fulviventer Anthony

1916. *Tylomys fulviventer* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 366, June 9, 1916.

Type Locality.—Tacarcuna, Darién, Panamá. Altitude, 4,200 feet. *Range.*—Known from type locality only.

Genus OTOTYLOMYS Merriam

1901. *Ototylomys* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 561, Nov. 29, 1901. (Type, *Ototylomys phyllotis* Merriam.)

Ototylomys phyllotis phyllotis Merriam†*

1901. *Ototylomys phyllotis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 562, Nov. 29, 1901.

Type Locality.—Tunkás, Yucatán, México. *Range.*—Recorded also at Chichén-Itzá (Hatt, Journ. Mamm., vol. 19, No. 3, p. 336, Aug. 18, 1938) and Calcehtok, Yucatán, and Esmeralda, Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 236, Sept. 28, 1950).

Ototylomys phyllotis phaeus Merriam†*

1901. *Ototylomys phyllotis phaeus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 563, Nov. 29, 1901.

Type Locality.—Apazote, near Yohaltún, Campeche, México. *Range.*—Recorded also at Uaxactún, northeastern Petén, Guatemala (A. Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 27, July 15, 1935).

Ototylomys phyllotis guatemalae Thomas*

1909. *Ototylomys guatemalae* Thomas, Abstr. Proc. Zool. Soc. London No. 73 (June 15), p. 32, June 22, 1909.

1942. *Ototylomys phyllotis guatemalae* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 166, May 29, 1942.

Type Locality.—Tucuru, Río Polochic, about 50 miles southeast of Cobán, Alta Verapaz, Guatemala. Altitude, 2,000 feet. *Range.*—Southeastern Guatemala (Goodwin, loc. cit.) and northern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 49, Dec. 12, 1934).

Ototylomys phyllotis fumeus J. A. Allen

1908. *Ototylomys fumeus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 658, Oct. 13, 1908.

1942. *Ototylomys phyllotis fumeus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 166, May 29, 1942.

Type Locality.—Matagalpa, Matagalpa, Nicaragua. *Range.*—Nicaragua and adjacent parts of Honduras and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 400, Dec. 31, 1946).

Ototylomys phyllotis australis Osgood

1931. *Ototylomys phyllotis australis* Osgood, Field Mus. Nat. Hist. Publ. 295, Zool. Ser., vol. 18, p. 145, Aug. 3, 1931.

Type Locality.—San Gerónimo, near Pozo Azul de Pirris, San José, western Costa Rica. *Range.*—Known from type locality only.

Ototylomys connectens Sanborn

1935. *Ototylomys connectens* Sanborn, Field Mus. Nat. Hist. Publ. 340, Zool. Ser., vol. 20, p. 82, May 15, 1935.

Type Locality.—Cobán, Alta Verapaz, Guatemala. *Range.*—Recorded also at Chimoxán and Finca Chama, Alta Verapaz.

Genus NYCTOMYS Saussure

1860. *Nyctomys* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 106, March 1860. (Type, *Hesperomys sumichrasti* Saussure.)

1902. *Nyctomys* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 30, April 1902.

Nyctomys sumichrasti sumichrasti (Saussure) *

1860. *H[esperomys] sumichrasti* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 107, March 1860.

1884. *Hesperomys sumichrasti* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1902. *N[yctomys] sumichrasti* Bangs, Bull. Mus. Comp. Zool., vol. 39, No. 2, p. 30, April 1902.

Type Locality.—Eastern slope of mountains in Veracruz, México. *Range.*—Veracruz to Isthmus of Tehuantepec, México (Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 216, Aug. 2, 1904).

Nyctomys sumichrasti pallidulus Goldman†*

1937. *Nyctomys sumichrasti pallidulus* Goldman, Journ. Washington Acad. Sci., vol. 27, No. 10, p. 420, Oct. 15, 1937.

Type Locality.—Santo Domingo, 8 miles west of Lagunas, on Mexican National Railroad, Isthmus of Tehuantepec, Oaxaca, México. Altitude, 900 feet. *Range.*—Known only from type locality in arid tropical belt on southern side of Isthmus of Tehuantepec, Oaxaca; probably has an extensive range in arid Pacific coast region of southwestern México.

Nyctomys sumichrasti salvini (Tomes) *

1862. *Hesperomys* (*Myoxomys*) *salvini* Tomes, Proc. Zool. Soc. London, 1861, pt. 3, p. 284, April 1862.

1916. *Nyctomys sumichrasti salvini* Goldman, Proc. Biol. Soc. Washington, vol. 29, p. 156, Sept. 6, 1916.

Type Locality.—Dueñas, Sacatepequez, southwestern Guatemala. *Range.*—Highlands of southwestern Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 50, Dec. 12, 1934).

Nyctomys sumichrasti decolorus (True) †*

1894. *Sitomys* (*Rhipidomys*) *decolorus* True, Proc. U. S. Nat. Mus., vol. 16 (1893), p. 689, Feb. 1894.

1916. *Nyctomys sumichrasti decolorus* Goldman, Proc. Biol. Soc. Washington, vol. 29, p. 156, Sept. 6, 1916.

Type Locality.—Río de las Piedras, Cortés, Honduras (see Bangs, Bull. Mus. Comp. Zool., vol. 39, No. 6, p. 158, July 1903). *Range.*—Highlands of central and western Honduras; limits of range unknown (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 167, May 29, 1942).

Nyctomys sumichrasti florencei Goldman

1937. *Nyctomys sumichrasti florencei* Goldman, Journ. Washington Acad. Sci., vol. 27, No. 10, p. 421, Oct. 15, 1937.

Type Locality.—Barra de Santiago, Ahuachapán, El Salvador. Sea level. *Range.*—Pacific coastal region of El Salvador; vertical range from sea level to at least 2,600 feet.

Nyctomys sumichrasti venustulus Goldman†*

1916. *Nyctomys sumichrasti venustulus* Goldman, Proc. Biol. Soc. Washington, vol. 29, p. 155, September 6, 1916.

Type Locality.—Greytown [San Juan del Norte], Comarca de San Juan del Norte, southeastern Nicaragua. *Range.*—East coast region of Nicaragua and lowlands of north-central and northeastern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 405, Dec. 31, 1946).

Nyctomys sumichrasti costaricensis Goldman†*

1937. *Nyctomys sumichrasti costaricensis* Goldman, Journ. Washington Acad. Sci., vol. 27, No. 10, p. 422, Oct. 15, 1937.

Type Locality.—San Gerónimo de Pirris, hamlet on main road to Pirris before reaching Jabillo, about 2 miles before abrupt descent to lowlands of Pozo Azul and about 12 miles inland from Pirris, San Jose, west coast of Costa Rica. Altitude, about 100 feet. *Range.*—Valley of Río Grande de Pirris, western Costa Rica; limits of range undetermined.

Nyctomys sumichrasti nitellinus Bangs*

1902. *Nyctomys nitellinus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 30, April 1902.

1916. *Nyctomys sumichrasti nitellinus* Goldman, Proc. Biol. Soc. Washington, vol. 29, p. 156, Sept. 6, 1916.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 4,000 feet. *Range.*—Highlands of western Panamá and eastern Costa Rica; limits of range unknown (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 405, Dec. 31, 1946).

Genus OTONYCTOMYS Anthony

1932. *Otonyctomys* Anthony, Amer. Mus. Nov., No. 586, p. 1, Nov. 16, 1932. (Type, *Otonyctomys hatti* Anthony.)

Otonyctomys hatti Anthony

1932. *Otonyctomys hatti* Anthony, Amer. Mus. Nov., No. 586, p. 1, Nov. 16, 1932.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Known from type locality only.

Genus REITHRODONTOMYS[11] Giglioli

1874. *Reithrodontomys* Giglioli, Boll. Soc. Geogr. Italiana, vol. 11, p. 326, May–July 1874. (Type, by subsequent selection, A. H. Howell, North Amer. Fauna No. 36, p. 13, June 5, 1914. *Reithrodon megalotis* Baird.)

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[11] Revised by A. H. Howell, North Amer. Fauna No. 36, pp. 1–97, pls. 7, June 5, 1914. Latin American forms revised by Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 1–255, pls. 9, Jan. 16, 1952.

Subgenus REITHRODONTOMYS Giglioli

megalotis—group

Reithrodontomys humulis humulis (Audubon and Bachman) *

1841. *Mus humulis* Audubon and Bachman, Proc. Acad. Nat. Sci. Philadelphia, vol. 1 (1841–1842), p. 97.

1884. *Ochetodon humilis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

1895. *Reithrodontomys humilis dickinsoni* Rhoads, Amer. Nat., vol. 29, p. 590, June 1895. (Willow Oak, Pasco County, Fla.)

1898. *Reithrodontomys lecontii impiger* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 167, Aug. 10, 1898. (White Sulphur Springs, Greenbrier County, W. Va. Altitude, 2,000 feet.)

1907. *Reithrodontomys humulis* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 49, Apr. 18, 1907.

Type Locality.—Charleston, Charleston County, S. C. *Range.*—Cleared, cultivated, or abandoned farm lands and tall grass lands of southeastern United States. Known range from near Mississippi River in eastern Louisiana (East Baton Rouge Parish) eastward and northward through Alabama, Georgia, Florida, Tennessee and Kentucky (Miller and Robertson, Nat. Hist. Misc. Chicago Acad. Sci. No. 67, pp. 1–3, Oct. 11, 1950), North Carolina, and South Carolina to extreme southeastern Virginia (Wallaceton, Norfolk County), thence westward and northward through western Virginia and southern West Virginia to Hamilton County in southwestern Ohio (Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 477, p. 12, Nov. 5, 1943).

Reithrodontomys humulis merriami (J. A. Allen)†*

1895. *Reithrodontomys merriami* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 119, May 21, 1895.

1914. *Reithrodontomys humulis merriami* A. H. Howell, North Amer. Fauna No. 36, p. 21, June 5, 1914.

Type Locality.—Austin Bayou, near Alvin, Brazoria County, Tex. *Range.*—Tall-grass prairies and marsh grasslands of extreme eastern Texas and southern Louisiana, west of Mississippi River. Known from vicinity of Richmond, Fort Bend County, and Alvin, Brazoria County, Tex., north and east to Lafayette, Lafayette Parish, La. (Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 477, p. 9, Nov. 5, 1943).

Reithrodontomys humulis virginianus A. H. Howell†*

1940. *Reithrodontomys humulis virginianus* A. H. Howell, Journ. Mamm., vol. 21, No. 3, p. 346, Aug. 13, 1940.

Type Locality.—Amelia, Amelia County, Va. *Range.*—Nonforested lands, particularly those under cultivation for grain crops, of the Piedmont and coastal plains of eastern Virginia and southwestern Maryland. Known from vicinity of Triplett, Brunswick County, Va., north to Takoma Park (near Washington, D. C.), Md. (Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 477, p. 17, Nov. 5, 1943).

Reithrodontomys montanus montanus (Baird)†*

1855. *Reithrodon montanus* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, p. 335, April 1855.

1884. *Ochetodon montanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1893. *Reithrodontomys montanus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 80, Apr. 28, 1893.

1935. *Reithrodontomys montanus montanus* Benson, Journ. Mamm., vol. 16, No. 2, p. 141, May 15, 1935. (See also, Hill and Hibbard, Journ. Mamm., vol. 24, No. 1, p. 24, Feb. 20, 1943.)

Type Locality.—Rocky Mountains, lat. 39° N. (Regarded as probably near upper end of San Luis Valley, Saguache County, Colo., by J. A. Allen, Bull. Amer. Nat. Hist., vol. 7, p. 124, May 21, 1895; and as very probably on Medano Creek, Alamosa County, Colo., by Warren, The Mammals of Colorado, . . . , p. 196, 1942.) *Range.*—Intermontane plains and valleys of southern Colorado, western New Mexico, trans-Pecos Texas, and northwestern México. Known range from Saguache County, Colo., south to vicinity of Agua Prieta, northeastern Sonora, and Canutillo, northern Durango. Vertical range from 4,000 feet at Agua Prieta to about 7,500 feet in San Luis Valley, Colo. (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 37–38, Jan. 16, 1952).

Reithrodontomys montanus albescens Cary†*

1903. *Reithrodontomys albescens* Cary, Proc. Biol. Soc. Washington, vol. 16, p. 53, May 6, 1903.

1935. *Reithrodontomys montanus albescens* Benson, Journ. Mamm., vol. 16, No. 2, p. 141, May 15, 1935. (See also Hill and Hibbard, Journ. Mamm., vol. 24, No. 1, p. 24, Feb. 20, 1943.)

Type Locality.—Eighteen miles northwest of Kennedy, Cherry County, Nebr. *Range.*—Sand-hill region of Nebraska and western South Dakota; west to Loveland, Larimer County, and to extreme southeastern Colorado (F. W. Miller, Journ. Mamm., vol. 9, No. 4, p. 338, Nov. 13, 1928); and south to Morton, Meade, Clark, Barber, and Harper Counties, Kansas (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 168, Aug. 25, 1952).

Reithrodontomys montanus griseus V. Bailey†*

1905. *Reithrodontomys griseus* V. Bailey, North Amer. Fauna No. 25, p. 106, Oct. 24, 1905.

1935. *Reithrodontomys montanus griseus* Benson, Journ. Mamm., vol. 16, No. 2, p. 141, May 15, 1935.

Type Locality.—San Antonio, Bexar County, Tex. *Range.*—Southern Nebraska, Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 77, September 1944), Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 117, July 1939), northern Texas (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 39, Jan. 16, 1952), and eastern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 165, Mar. 1, 1932).

Reithrodontomys burti Benson

1939. *Reithrodontomys burti* Benson, Proc. Biol. Soc. Washington, vol. 52, p. 147, Oct. 11, 1939.

Type Locality.—Rancho de Costa Rica, Río Sonora, Sonora, México. *Range.*—Coastal flood plains of western Sonora from Río Sonora south to near Guaymas. Known vertical range from 300 to 600 feet.

Reithrodontomys megalotis megalotis (Baird)†*

1858. *Reithrodon megalotis* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 451, July 14, 1858.

1893. *Reithrodontomys megalotis* J. A. Allen, Bull. Amer. Mus. Nat. Hist. vol. 5, p. 79, Apr. 28, 1893.

1895. *Reithrodontomys megalotis deserti* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 127, May 21, 1895. (Oasis Valley, Nye County, Nev.)

1903. *Reithrodontomys megalotis sestinensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 602, Nov. 12, 1903. (Río Sestin, northwest Durango, México. Altitude, 7,500 feet.)

1914. *Reithrodontomys megalotis nigrescens* A. H. Howell†, North Amer. Fauna No. 36, p. 32, June 5, 1914. (Payette, Payette County, Idaho. Subsequently regarded as identical with *megalotis* by A. H. Howell, Journ. Mamm., vol. 20, No. 3, p. 390, Aug. 14, 1939; and by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 324, Apr. 9, 1948. See also Davis, The Recent mammals of Idaho, p. 283, Apr. 5, 1939; and Hall, Mammals of Nevada, p. 499, July 1, 1946.)

Type Locality.—Between Janos, Chihuahua, México, and San Luis Springs, Grant County, N. Mex. *Range.*—From Okanagan Valley (Osoyoos Lake and Penticton), British Columbia (Holland, Murrelet, vol. 23, p. 60, Aug. 14, 1942), south through Columbian Plateau of Washington in Upper Sonoran area west of Columbia River and south of Wenatchee Mountains in Kittitas, Yakima, and Benton Counties, north side of Columbia River in Klickitat County, and Okanogan County east of Okanogan River (Dalquest, op. cit., p. 325); Great Basin region of Idaho north to Fremont County and eastward probably into Wyoming (Davis, op. cit., p. 281) and south into Utah, excluding region east of Colorado River (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 296, Aug. 10, 1952); all Nevada in Sonoran Zone (Hall, op. cit., p. 497); dry Upper Sonoran area of Oregon east of Cascades (V. Bailey, North Amer. Fauna No. 55 (June), p. 189, Aug. 29, 1936); Great Basin areas and Colorado and Mohave Deserts of California; recorded north, at Montague and Brownell, in Siskiyou County, and Bieber, in extreme northwestern Lassen County, and east of Sierra Nevada, at Goose Lake, near Sugar Hill, eastern Modoc County; west at south, from valley of Colorado River, to Mecca, Riverside County, to Victorville, San Bernardino County, to Tehachapi, Kern County, and through Walker Pass region as far as Bodfish, on Kern River, Kern County; vertical range, from 250 feet below sea level (Eagle Borax Works, Death Valley, Inyo County) up to 7,500 feet above sea level (Little Onion Valley, east flank Sierra Nevada west of Independence, Inyo County) and exceptionally to 11,500 feet (at McAfee Meadow, White Mountains, Mono County) in California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 169, Sept. 26, 1933); northeastern Baja California; Arizona, and southern New Mexico (V. Bailey, North Amer. Fauna, No. 53 (December 1931), p. 162, Mar. 1, 1932) to western Texas (west of Pecos River) and southwestern Kansas (Hill and Hibbard, Journ. Mamm., vol. 24, No. 1, p. 22, Feb. 20, 1943. Known range in México from vicinity of Puerto de Lobos and Cananea, northern Sonora, southeast on Plateau and in foothills of Sierra Madre to vicinity of Guanajuato. Known vertical range in México from approximately sea level at Puerto de Lobos, Sonora, to approximately 8,500 feet near Guanajuato,

Guanajuato (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 53, Jan. 16, 1952).

Reithrodontomys megalotis zacatecae Merriam†*

1901. *Reithrodontomys megalotis zacatecae* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 557, Nov. 29, 1901.

1901. *Reithrodontomys megalotis obscurus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 558, Nov. 29, 1901. (Sierra Madre, near Guadalupe y Calvo, Chihuahua, México.)

Type Locality.—Sierra de Valparaiso, Zacatecas, México. *Range.*—Sierra Madre Occidental of western México. Known range from vicinity of Colonia Garcia, northwestern Chihuahua, south to Nevado and Volcán de Colima and vicinity of Pátzcuaro, Michoacán. Known vertical range from approximately 6,000 feet at Los Conejos, Michoacán, to 8,500 feet at Nahuatzen, Michoacán (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 61–62, Jan. 16, 1952).

Reithrodontomys megalotis saturatus J. A. Allen and Chapman*

1897. *Reithrodontomys saturatus* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 201, June 16, 1897.

1901. *Reithrodontomys saturatus cinereus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 556, Nov. 29, 1901. (Semidesert area near Chalchicomula (San Andrés), Puebla, México. Regarded as identical with *saturatus* by Davis, Journ. Mamm., vol. 25, No. 4, pp. 391–392, Dec. 12, 1944; and by Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 55, Jan. 16, 1952.)

1914. *Reithrodontomys megalotis saturatus* A. H. Howell, North Amer. Fauna No. 36, p. 36, June 5, 1914.

Type Locality.—Las Vigas, Veracruz, México. Altitude, 8,000 feet. *Range.*—Highlands of central and eastern México. Known range from vicinity of Volcán de Orizaba, west-central Veracruz, west to Ameca, central Jalisco, and north in Sierra Madre Oriental to neighborhood of Galeana, west-central Nuevo León. Vertical range from 3,500 feet in mountains near Gómez Farías, Tamaulipas, to timber line (about 13,000 feet) on Volcán de Popocatépetl and Volcán de Orizaba (Hooper, op. cit., p. 56).

Reithrodontomys megalotis amoles A. H. Howell†*

1914. *Reithrodontomys amoles* A. H. Howell, North Amer. Fauna No. 36, p. 40, June 5, 1914.

1952. *Reithrodontomys megalotis amoles* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 64, Jan. 16, 1952.

Type Locality.—Pinal de Amoles, Querétaro, México. Altitude, approximately 7,500 feet. *Range.*—Known from type locality only.

Reithrodontomys megalotis alticolus Merriam†*

1901. *Reithrodontomys saturatus alticolus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 556, Nov. 29, 1901.

1914. *Reithrodontomys megalotis alticolus* A. H. Howell, North Amer. Fauna No. 36, p. 37, June 5, 1914.

Type Locality.—Cerro San Felipe, near city of Oaxaca, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Highlands of Oaxaca and probably of Guerrero. Known range from vicinity of Tamazulapan and Cerro Zempoaltepec south to

Tlapacingo, at west, and to Miahuatlán and Ozolotepec, at east. Vertical range from 4,700 feet at Ejutla to 10,000 feet on Cerro San Felipe (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 60, Jan. 16, 1952).

Reithrodontomys megalotis peninsulae (Elliot)*

1903. *Rhithrodontomys peninsulae* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 164, May 7, 1903.

1914. *Reithrodontomys megalotis peninsulae* A. H. Howell, North Amer. Fauna No. 36, p. 35, June 5, 1914.

Type Locality.—San Quintín, Baja California, México. *Range.*—West coast of Baja California, between lat. 30° and 31° N.; southern limit of range not definitely known.

Reithrodontomys megalotis limicola von Bloeker

1932. *Reithrodontomys megalotis limicola* von Bloeker, Proc. Biol. Soc. Washington, vol. 45, p. 133, Sept. 9, 1932.

Type Locality.—Playa del Rey, Los Angeles County, Calif. *Range.*—Coastal marshes in Orange, Los Angeles, and Ventura Counties, Calif.; from Anaheim Bay, Orange County, to Point Mugu, Ventura County.

Reithrodontomys megalotis santacruzae Pearson

1951. *Reithrodontomys megalotis santacruzae* Pearson, Journ. Mamm., vol. 32, No. 3, p. 366, Aug. 23, 1951.

Type Locality.—Prisoner's Harbor, Santa Cruz Island, Santa Barbara County, Calif. *Range.*—Known only from Prisoner's Harbor, on north shore of Santa Cruz Island.

Reithrodontomys megalotis catalinae (Elliot)*

1904. *Rhithrodontomys catalinae* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 246, Jan. 7, 1904.

1952. *Reithrodontomys megalotis catalinae* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 23, Jan. 16, 1952.

Type Locality.—Santa Catalina Island [near Avalon], Santa Barbara Islands, Los Angeles County, Calif. *Range.*—Santa Catalina Island (see Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 170, Sept. 26, 1933).

Reithrodontomys megalotis distichalis von Bloeker

1937. *Reithrodontomys megalotis distichalis* von Bloeker, Proc. Biol. Soc. Washington, vol. 50, p. 155, Sept. 10, 1937.

Type Locality.—Salt marsh at mouth of Salinas River, Monterey County, Calif. *Range.*—Coastal salt marshes and sandhill region in vicinity of seacoast in Monterey County from mouth of Elkhorn Slough, Moss Landing, south to Seaside Lagoon.

Reithrodontomys megalotis longicaudus (Baird)†*

1858. *Reithrodon longicauda* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington 1857), p. 451, July 14, 1858.

1884. *Ochetodon longicauda* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1893. *Reithrodontomys pallidus* Rhoads, Amer. Nat., vol. 27, p. 835, September 1893. (Santa Ysabel, San Jacinto Mountains, San Diego County, Calif.)

1895. *Reithrodontomys longicauda* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 129, May 21, 1895.

1899. *Reithrodontomys klamathensis* Merriam†, North Amer. Fauna No. 16, p. 93, Oct. 28, 1899. (Mayten, Shasta Valley, Siskiyou County, Calif.)

1913. *Reithrodontomys megalotis longicaudus* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 303, Aug. 28, 1913.

Type Locality.—Petaluma, Sonoma County, Calif. *Range.*—Greater part of western California, except marshes along coast south of Monterey Bay, east to foothills of Sierra Nevada, San Bernardino and San Jacinto Ranges (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 170, Sept. 26, 1933); north to Grants Pass, Oreg., and south into northwestern Baja California to about lat. 32° N.

Reithrodontomys megalotis arizonensis J. A. Allen

1895. *Reithrodontomys arizonensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 134, May 21, 1895.

1914. *Reithrodontomys megalotis arizonensis* A. H. Howell, North Amer. Fauna No. 36, p. 38, June 5, 1914.

Type Locality.—Rock Creek, Chiricahua Mountains, Cochise County, Ariz. Altitude, about 8,000 feet. *Range.*—Known only from head of Rock Creek Canyon, west of Long Park, Chiricahua Mountains.

Reithrodontomys megalotis aztecus J. A. Allen*

1893. *Reithrodontomys aztecus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 79, Apr. 28, 1893.

1914. *Reithrodontomys megalotis aztecus* A. H. Howell, North Amer. Fauna No. 36, p. 30, June 5, 1914.

Type Locality.—La Plata, San Juan County, N. Mex. (See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 125, May 21, 1895). *Range.*—Northern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 164, Mar. 1, 1932), northeastern Arizona and western Colorado, north to Grand Junction in Mesa County and Rifle in Garfield County. Recorded also from southwestern Kansas (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 167, Aug. 25, 1952) and southeastern Utah east of Colorado River (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 298, Aug. 10, 1952).

Reithrodontomys megalotis caryi A. H. Howell†*

1935. *Reithrodontomys megalotis caryi* A. H. Howell, Journ. Mamm., vol. 16, No. 2, p. 143, May 15, 1935.

Type Locality.—Medano Ranch, 15 miles northeast of Mosca, Alamosa County, Colo. *Range.*—San Luis Valley, Colo.

Reithrodontomys megalotis ravus Goldman†*

1939. *Reithrodontomys megalotis ravus* Goldman, Journ. Mamm., vol. 20, No. 3, p. 355, Aug. 14, 1939.

Type Locality.—North end of Stansbury Island (sand bar at springs on lake shore), Great Salt Lake, Tooele County, Utah. Altitude, 4,250 feet. *Range.*—Recorded also at Grantsville, Tooele County (Marshall, Journ. Mamm., vol. 21, No. 2, pp. 154, 155, May 16, 1940).

Reithrodontomys megalotis dychei J. A. Allen*

1895. *Reithrodontomys dychei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 120, May 21, 1895.

1895. *Reithrodontomys dychei nebrascensis* J. A. Allen†, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 122, May 21, 1895. (Kennedy, Cherry County, Nebr.)

1914. *Reithrodontomys megalotis dychei* A. H. Howell, North Amer. Fauna No. 36, p. 30, June 5, 1914.

Type Locality.—Lawrence, Douglas County, Kans. *Range.*—Greater part of Kansas, Nebraska, Iowa, Missouri, and South Dakota; southeastern and southwestern North Dakota; southwestern Minnesota (Hanson, Field Mus. Nat. Hist. Publ. 564, Zool. Ser., vol. 29, p. 206, Oct. 26, 1944); southeastern Montana; eastern Wyoming and eastern Colorado.

Reithrodontomys megalotis pectoralis Hanson*

1944. *Reithrodontomys megalotis pectoralis* Hanson, Field Mus. Nat. Hist. Publ. 564, Zool. Ser., vol. 29, p. 205, Oct. 26, 1944.

Type Locality.—Westpoint, Columbia County, Wisc. *Range.*—Driftless region of southwestern Wisconsin and southeastern Minnesota. Recorded also from western Dane County, southeastern Wisconsin (Schorger, Journ. Mamm., vol. 31, No. 3, p. 363, Aug. 21, 1950).

Reithrodontomys raviventris raviventris Dixon*

1908. *Reithrodontomys raviventris* Dixon, Proc. Biol. Soc. Washington, vol. 21, p. 197, Oct. 20, 1908.

Type Locality.—[Salt marsh near] Redwood City, San Mateo County, Calif. *Range.*—Salt marshes bordering south arm of San Francisco Bay, from Redwood City, San Mateo County, around to Melrose Marsh and to near Berkeley, Alameda County, Calif.; zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 171, Sept. 26, 1933).

Reithrodontomys raviventris halicoetes Dixon*

1909. *Reithrodontomys halicoetes* Dixon, Univ. California Publ. Zool., vol. 5, No. 4, p. 271, Aug. 14, 1909. (Regarded as distinct species by Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 171, Sept. 26, 1933.)

1914. *Reithrodontomys raviventris halicoetes* A. H. Howell, North Amer. Fauna No. 36, p. 42, June 5, 1914.

Type Locality.—Salt marsh 3 miles south of Petaluma, Sonoma County, Calif. *Range.*—Chiefly tidal marshes on north side of San Francisco and Suisun Bays, from vicinity of Petaluma, Sonoma County, east to Grizzly Island, Solano County; occurs also as far up Sacramento River as Grand Island, 2 miles north of Knight's Landing, Yolo County, and on south side of Suisun Bay east to near Brentwood, Contra Costa County; vertical range below 50 feet; zonal range, Upper Sonoran (Grinnell, loc. cit.).

Reithrodontomys sumichrasti sumichrasti (Saussure)*

1861. *Reithrodon sumichrasti* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol .13, p. 3.

1897. *Reithrodontomys rufescens* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 199, June 16, 1897. (Jalapa, Veracruz, México. Altitude, 4,400 feet.)

1952. *Reithrodontomys sumichrasti sumichrasti* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 71, Jan. 16, 1952.

Type Locality.—México (restricted to Mirador, Veracruz, by Hooper, op. cit., p. 72). *Range.*—Mountains of southeastern México, in Veracruz, Puebla, Hidalgo, Querétaro, México, Distrito Federal, and Oaxaca. Known range from Amoles, Querétaro, and Molango, Hidalgo, southeast to Cerro San Felipe, Oaxaca. Known vertical range from about 4,000 feet at Orizaba, Veracruz, to 9,500 feet in vicinity of San Bartolomé, near city of México (Hooper, op. cit., p. 72).

Reithrodontomys sumichrasti nerterus Merriam†*

1901. *Reithrodontomys colimae nerterus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 551, Nov. 29, 1901.

1901. *Reithrodontomys levipes otus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 555, Nov. 29, 1901. (Foothills of El Nevado de Colima, Jalisco, México.)

1949. *Reithrodontomys chrysopsis seclusus* Hall and Villa, Proc. Biol. Soc. Washington, vol. 62, p. 163, Aug. 23, 1949. (Mount Tancítaro, Michoacán, México. Altitude, 7,800 feet.)

1952. *Reithrodontomys sumichrasti nerterus* Hooper, Univ. Mich. Mus. Zool. Misc. Publ. 77, p. 74, Jan. 16, 1952.

Type Locality.—Foothills of El Nevado de Colima, Jalisco, México. Altitude, 6,500 feet. *Range.*—Mountains bounding southwestern part of Mexican Plateau, in States of Jalisco and Michoacán. Known range from Sierra de Autlán, Jalisco, east to Macho de Agua, extreme eastern Michoacán. Known vertical range from 5,300 feet at Uruapan, Michoacán, to 9,500 feet on Nevado de Colima, Jalisco (Hooper, loc. cit.).

Reithrodontomys sumichrasti luteolus A. H. Howell†*

1914. *Reithrodontomys rufescens luteolus* A. H. Howell, North Amer. Fauna No. 36, p. 57, June 5, 1914.

1914. *Reithrodontomys alleni* A. H. Howell†, North Amer. Fauna No. 36, p. 59, June 5, 1914. (Mountains near Ozolotepec, Oaxaca, México. Altitude, 10,000 feet.)

1952. *Reithrodontomys sumichrasti luteolus* Hooper, Univ. Mich. Mus. Zool. Misc. Publ. 77, p. 77, Jan. 16, 1952.

Type Locality.—Juquila, Oaxaca, México. Altitude, 5,000 feet. *Range.*—Sierra Madre del Sur of Guerrero and Oaxaca, México. Known range from Omilteme, Guerrero, east to vicinity of Ozolotepec, Oaxaca. Known vertical range from 5,000 feet at Juquila to 10,000 feet in mountains near Ozolotepec (Hooper, loc. cit.).

Reithrodontomys sumichrasti dorsalis Merriam†*

1901. *Reithrodontomys dorsalis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 557, Nov. 29, 1901.

1952. *Reithrodontomys sumichrasti dorsalis* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 78, Jan. 16, 1952.

Type Locality.—Calel, southwest of Momostenango, Quezaltenango, Guatemala. Altitude, 10,200 feet. *Range.*—Mountains of Chiapas and Guatemala. Known range from Pueblo Nuevo, Chiapas, southeast to vicinity of Salamá and San Rafael, Guatemala. Vertical range from 4,000 feet at Las Margaritas, Chiapas, to approximately 13,200 feet on Volcán Tajumulco, Guatemala (Hooper, loc. cit.).

Reithrodontomys sumichrasti modestus Thomas

1907. *Reithrodontomys modestus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 20, p. 163, August 1907.

1937. *Reithrodontomys dorsalis underwoodi* Goodwin, Amer. Mus. Nov., No. 921, p. 2, May 3, 1937. (Monte Verde, 30 miles northwest of Ocotepeque, Ocotepeque, Honduras. Altitude, 4,500 feet.)

1952. *Reithrodontomys sumichrasti modestus* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 80, Jan. 16, 1952.

Type Locality.—Jinotega, Jinotega, north-central Nicaragua. Altitude, 4,650 feet. *Range.*—Interior highlands of El Salvador, Honduras, and northwestern Nicaragua. Known range from Los Esesmiles, El Salvador, and Monte Verde, Honduras, east to vicinity of Jinotega and San Rafael del Norte, Nicaragua. Vertical range from 4,500 feet at Monte Verde to 8,000 feet on Los Esesmiles (Hooper, loc. cit.).

Reithrodontomys sumichrasti australis J. A. Allen*

1895. *Reithrodontomys australis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 328, Nov. 8, 1895.

1952. *Reithrodontomys sumichrasti australis* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 82, Jan. 16, 1952.

Type Locality.—Volcán de Irazú, Cartago, Costa Rica. *Range.*—Cordillera Central and Cordillera de Talamanca in Costa Rica. Known range confined to Volcán de Irazú and to other mountains near San José, Costa Rica (Hooper, loc. cit.).

Reithrodontomys sumichrasti vulcanius Bangs

1902. *Reithrodontomys australis vulcanius* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 38, April 1902.

1952. *Reithrodontomys sumichrasti vulcanius* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 83, Jan. 16, 1952.

Type Locality.—Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 10,300 feet. *Range.*—High mountains of western Panamá and probably of extreme eastern Costa Rica. Known only from vicinity of Volcán de Chiriquí, from 4,400 feet, in open grassland on flanks of volcano, to about 11,400 feet, on summit (Hooper, loc. cit.).

Reithrodontomys chrysopsis chrysopsis Merriam†*

1900. *Reithrodontomys chrysopsis* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 152, June 13, 1900.

1901. *Reithrodontomys chrysopsis tolucae* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 549, Nov. 29, 1901. (North slope of Volcán de Toluca, México, México. Altitude, 11,500 feet.)

1901. *Reithrodontomys colimae* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 551, Nov. 29, 1901. (Near timberline, El Nevado de Colima, Jalisco, México. Altitude, 12,000 feet.)

Type Locality.—Volcán Popocatépetl, México, México. Altitude, 11,500 feet. *Range.*—High mountains of central México in States of Puebla, México, Michoacán, Morelos, and Jalisco. Known range from Volcán Popocatépetl, Monte Río Frío, and other mountains bounding Valley of México west, interruptedly, to El Nevado de Colima, extreme southeastern Jalisco. Known vertical range from 9,300 feet at San Mateo, near city of México, to about 12,200 feet on Volcán de Toluca. (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 87, Jan. 16, 1952).

Reithrodontomys chrysopsis perotensis Merriam†*

1901. *Reithrodontomys perotensis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 550, Nov. 29, 1901.

1901. *Reithrodontomys orizabae* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 550, Nov. 29, 1901. (Volcán de Orizaba, Puebla, México. Altitude, 9,500 feet.)

1952. *Reithrodontomys chrysopsis perotensis* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 89, Jan. 16, 1952.

Type Locality.—Cofre de Perote, Veracruz, México. Altitude, 9,500 feet. *Range.*—Known only from elevations above 9,500 feet on Cofre de Perote, Veracruz, and Volcán de Orizaba, Veracruz and Puebla (Hooper, loc. cit.).

fulvescens—group

Reithrodontomys fulvescens fulvescens J. A. Allen*

1894. *Reithrodontomys mexicanus fulvescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 319, Nov. 7, 1894.

1895. *Reithrodontomys fulvescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 138, May 21, 1895.

Type Locality.—Oposura, Sonora, México. Altitude, 2,000 feet. *Range.*—Arid plains and mountains of southeastern Arizona and eastern half of Sonora, north of Río Mayo. Known geographic range from vicinity of Tucson, Ariz., south to vicinity of Macori, Sonora. Vertical range from 2,000 feet at Oposura, Sonora, to 5,300 feet in Huachuca Mountains, Ariz. (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 94, Jan. 16, 1952).

Reithrodontomys fulvescens canus Benson*

1939. *Reithrodontomys fulvescens canus* Benson, Proc. Biol. Soc. Washington, vol. 52, p. 149, Oct. 11, 1939.

Type Locality.—Five miles southeast of Chihuahua, Chihuahua, México. Altitude, 5,750 feet. *Range.*—Northern part of Mexican Plateau in Durango, Coahuila, and Chihuahua, and western Texas. Known geographic range from Davis Mountains, Tex., and vicinity of city of Chihuahua south to latitude of Gómez Palacio, Durango. Vertical range from 3,800 feet at San Juan, Durango, to 6,650 feet near Zarca, Durango (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 97, Jan. 16, 1952).

Reithrodontomys fulvescens intermedius J. A. Allen*

1895. *Reithrodontomys mexicanus intermedius* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 136, May 21, 1895.

1896. *Reithrodontomys laceyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 235, Nov. 21, 1896. (Watson's Ranch, 15 miles south of San Antonio, Bexar County, Tex.)

1914. *Reithrodontomys fulvescens intermedius* A. H. Howell, North Amer. Fauna No. 36, p. 47, June 5, 1914.

Type Locality.—Brownsville, Cameron County, Tex. *Range.*—Plains and hills of southern Texas and northeastern México. Known range from Kerr County, Tex., south to Santa Engracia, Tamaulipas, and to localities near Monterrey, Nuevo León. Vertical range from near sea level at several localities in Texas to 2,400 feet near Santa Catarina, Nuevo León (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 107, Jan. 16, 1952).

Reithrodontomys fulvescens aurantius J. A. Allen†*

1895. *Reithrodontomys mexicanus aurantius* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 137, May 21, 1895.

1899. *Reithrodontomys chrysotis* Elliot, Field Columb. Mus. Publ. 37, Zool. Ser., vol. 1, No. 14 (May 9), p. 281, May 15, 1899. (Dougherty, Washita River, Murray County, Okla.)

1914. *Reithrodontomys fulvescens aurantius* A. H. Howell, North Amer. Fauna No. 36, p. 48, June 5, 1914.

Type Locality.—Lafayette, Lafayette Parish, La. *Range.*—South-central United States. Known range from Cherokee and Chautauqua Counties, southeastern Kansas, Ozark County, southern Missouri, and Cleveland County, central Oklahoma, south to Copiah County, Miss., and Colorado County, Tex. Vertical range from near sea level at several localities in Texas and Louisiana to 1,500 feet at Noble, Okla. (Hooper, Univ. Michigan Mus. Zool. Misc Publ. 77, p. 105, Jan. 16, 1952).

Reithrodontomys fulvescens griseoflavus Merriam†*

1901. *Reithrodontomys griseoflavus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 553, Nov. 29, 1901.

1952. *Reithrodontomys fulvescens griseoflavus* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 98, Jan. 16, 1952.

Type Locality.—Ameca, Jalisco, México. Altitude, 4,000 feet. *Range.*—Plains and mountains of southwestern part of Mexican Plateau. Known range from vicinity of Jaral, Coahuila, and Jaumave, Tamaulipas, south and west to Santa Isabel, southeastern Nayarit, and to vicinity of Talpa and Autlán, Jalisco. Vertical range from about 2,700 feet at Jaumave, Tamaulipas, to 6,800 feet near Punta, Jalisco (Hooper, loc. cit.).

Reithrodontomys fulvescens tropicalis Davis*

1944. *Reithrodontomys fulvescens tropicalis* Davis, Journ. Mamm., vol. 25, No. 4 (November), p. 393, Dec. 12, 1944.

Type Locality.—Boca del Río, 8 kilometers south of city of Veracruz, México. Altitude, 10 feet. *Range.*—Coastal lowlands and foothills of eastern México. Known range from Presidio and Catemaco, Veracruz, north to Sierra de Tamaulipas and vicinity of Gómez Farías, Tamaulipas. Known vertical range from near sea level at Boca del Río and Tampico Alto to 3,600 feet in Sierra de Tamaulipas (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 108, Jan. 16, 1952).

Reithrodontomys fulvescens difficilis Merriam†*

1901. *Reithrodontomys difficilis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 566, Nov. 29, 1901.

1914. *Reithrodontomys fulvescens difficilis* A. H. Howell, North Amer. Fauna No. 36, p. 50, June 5, 1914.

Type Locality.—Orizaba, Veracruz, México. Altitude, about 4,500 feet. *Range.*—Humid eastern slopes of Sierra Madre Oriental of eastern México. Known range from vicinity of Orizaba north to vicinity of San Agustin, Hidalgo. Vertical range from 1,500 feet near Tlacotepec to 6,500 feet near Zacualpilla, Veracruz (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 110, Jan. 16, 1952).

Reithrodontomys fulvescens toltecus Merriam†*

1901. *Reithrodontomys levipes toltecus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 555, Nov. 29, 1901.

1903. *Reithrodontomys inexspectatus* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 145, Mar. 20, 1903. (Pátzcuaro, Michoacán, México.)

1914. *Reithrodontomys fulvescens toltecus* A. H. Howell, North Amer. Fauna No. 36, p. 51, June 5, 1914.

Type Locality.—Tlalpan, Distrito Federal, México. Altitude, 7,500 feet. *Range.*—Mountains and valleys bordering southern part of Mexican Plateau. Known geographic range from Zimapán, Hidalgo, and localities in Distrito Federal west to Los Reyes, Michoacán. Vertical range from 4,400 feet near Uruapan, Michoacán, to 8,500 feet near Contreras, Distrito Federal (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 101, Jan. 16, 1952).

Reithrodontomys fulvescens tenuis J. A. Allen*

1899. *Reithrodontomys tenuis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 15, Mar. 4, 1899.

1914. *Reithrodontomys fulvescens tenuis* A. H. Howell, North Amer. Fauna No. 36, p. 45, June 5, 1914.

Type Locality.—Rosario, Sinaloa, México. Altitude, about 200 feet. *Range.*—Pacific coastal plain and adjoining foothills and valleys of southern Sonora, Sinaloa, extreme western Chihuahua and Durango, and northern Nayarit. Known range from vicinity of Alamos, Sonora, south to vicinity of Tepic, Nayarit. Vertical range from near sea level at Mazatlán to 3,000 feet near Tepic (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 111, Jan. 16, 1952).

Reithrodontomys fulvescens nelsoni A. H. Howell†*

1914. *Reithrodontomys fulvescens nelsoni* A. H. Howell, North Amer. Fauna No. 36, p. 53, June 5, 1914.

Type Locality.—Colima, Colima, México. Altitude, about 1,300 feet. *Range.*—Coastal valleys and adjoining lower slopes of mountains of southern Nayarit, extreme western Jalisco, Colima, and probably southwestern Michoacán. Known range from vicinity of Santa Isabel (intergrading area), 3,800 feet, Nayarit, south at least to vicinity of Colima, 1,700 feet, Colima (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 113, Jan. 16, 1952).

Reithrodontomys fulvescens infernatis Hooper

1950. *Reithrodontomys fulvescens infernatis* Hooper, Proc. Biol. Soc. Washington, vol. 63, p. 167, Dec. 29, 1950.

Type Locality.—Teotitlán, Oaxaca, México. Altitude, 3,100 feet. *Range.*—Extreme southeastern Puebla and northern Oaxaca. Known range confined to the areas drained by Salado and Quiotepec Rivers, from vicinity of Teotitlán, 3,100 feet, Oaxaca, north to Tepanco, 5,700 feet, Puebla (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 117, Jan. 16, 1952).

Reithrodontomys fulvescens mustelinus A. H. Howell†*

1914. *Reithrodontomys fulvescens mustelinus* A. H. Howell, North Amer. Fauna No. 36, p. 54, June 5, 1914. (See also, Hooper, Journ. Mamm., vol. 28, No. 1, p. 49, Feb. 17, 1947.)

Type Locality.—Llano Grande, Oaxaca, México. Altitude, 300 feet. *Range.*—Pacific coastal slopes of Sierra Madre del Sur in southwestern Oaxaca and southern Guerrero and slopes bounding Balsas Basin in Michoacán, Morelos, Puebla, and Guerrero. Known range from Llano Grande, Oaxaca, northwest to Chilpancingo, Guerrero, thence north to Tepoztlán and Yautepec, Morelos. Vertical range from 300 feet at Llano Grande to 6,000 feet at Tepoztlán (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 114, Jan. 16, 1952).

Reithrodontomys fulvescens helvolus Merriam†*

1901. *Reithrodontomys griseoflavus helvolus* Merriam, Proc. Washington Acad. Sci. vol. 3, p. 554, Nov. 29, 1901.

1914. *Reithrodontomys fulvescens helvolus* A. H. Howell, North Amer. Fauna No. 36, p. 52, June 5, 1914.

Type Locality.—City of Oaxaca, Oaxaca, México. Altitude, about 5,000 feet. *Range.*—Sierra Madre del Sur in Oaxaca and probably in eastern Guerrero. Known range from vicinity of city of Oaxaca south to Sola de la Vega and east to Nejapa. Vertical range from 1,900 feet at Nejapa to 5,000 feet at Oaxaca (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 119, Jan. 16, 1952).

Reithrodontomys fulvescens amoenus (Elliot)

1905. *Rhithrodontomys amoenus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 234, Dec. 9, 1905.

1952. *Reithrodontomys fulvescens amoenus* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 120, Jan. 16, 1952.

Type Locality.—Reforma, Oaxaca, México. Altitude, about 500 feet. *Range.*—Known only from type locality but probably ranging to west and east on Pacific coastal lowlands of Oaxaca and southwestern Chiapas (Hooper, loc. cit.).

Reithrodontomys fulvescens chiapensis A. H. Howell†*

1914. *Reithrodontomys fulvescens chiapensis* A. H. Howell, North Amer. Fauna No. 36, p. 53, June 5, 1914.

Type Locality.—Canjob, Chiapas, México. Altitude, about 5,000 feet. *Range.*—Arid interior valleys and slopes of Chiapas, Guatemala, El Salvador, and Honduras. Known range from vicinity of Cintalapa and Bochil, Chiapas, southeast to Volcán San Miguel, El Salvador, and to vicinity of Tegucigalpa, Honduras, but excluding Pacific coastal drainages of southern Chiapas and western Guatemala. Known vertical range from 1,800 feet at Cintalapa to 5,700 feet in vicinity of Comitán (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 121, Jan. 16, 1952).

Reithrodontomys hirsutus Merriam†*

1901. *Reithrodontomys hirsutus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 553, Nov. 29, 1901.

1901. *Reithrodontomys levipes* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 554, Nov. 29, 1901. (San Sebastián, Jalisco, México. Altitude, 3,000 feet.)

Type Locality.—Ameca, Jalisco, México. Altitude, 4,000 feet. *Range.*—Moderate elevations in mountains of western Jalisco and southern Nayarit. Known range from Santa Isabel, south to Sierra de San Sebastián and east to Ameca, Jalisco. Vertical range from 3,000 feet near San José del Conde to 4,000 feet at Ameca (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 125, Jan. 16, 1952).

Subgenus APORODON A. H. Howell

1914. *Aporodon* A. H. Howell, North Amer. Fauna No. 36, p. 63, June 5, 1914. (Type, *Reithrodontomys tenuirostris* Merriam.)

mexicanus—group

Reithrodontomys gracilis gracilis J. A. Allen and Chapman*

1897. *Reithrodontomys mexicanus gracilis* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 9, Feb. 23, 1897.

1914. *Reithrodontomys gracilis* A. H. Howell, North Amer. Fauna No. 36, p. 76, June 5, 1914.

Type Locality.—Chichén-Itzá, Yucatán, México. Altitude, 75 feet. *Range.*—Semiarid parts of Yucatán Peninsula. Known range from near sea level at Progreso, Yucatán, south to vicinity of Cayo, 1,000 feet, British Honduras, and Apazote, 300 feet, Campeche (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 132, Jan. 16, 1952).

Reithrodontomys gracilis anthonyi Goodwin*

1932. *Reithrodontomys gracilis anthonyi* Goodwin, Amer. Mus. Nov., No. 560, p. 3, Sept. 16, 1932.

Type Locality.—Sacapulas, El Quiché, northwestern Guatemala. Altitude, 4,500 feet. *Range.*—Arid valleys and slopes of central and southeastern Guatemala and of El Salvador. Known range from Monte Cristo mine, 700 feet, El Salvador, to Sacapulas, 4,500 feet, Guatemala (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 133, Jan. 16, 1952).

Reithrodontomys gracilis pacificus Goodwin*

1932. *Reithrodontomys pacificus* Goodwin, Amer. Mus. Nov., No. 560, p. 2, Sept. 16, 1932.

1952. *Reithrodontomys gracilis pacificus* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 135, Jan. 16, 1952.

Type Locality.—Hacienda California, a cattle ranch on Pacific coast, 6 miles from Ocós, and about same distance from Chiapas border, San Marcos, Guatemala. Near sea level. *Range.*—Pacific coastal plain and slopes in Chiapas and Guatemala. Known range from vicinity of Pijijiapan, Chiapas, to San José, Guatemala. Vertical range from near sea level at San José and Hacienda California, to about 2,000 feet at Finca El Ciprés, Guatemala (Hooper, loc. cit.).

Reithrodontomys gracilis harrisi Goodwin

1945. *Reithrodontomys harrisi* Goodwin, Amer. Mus. Nov., No. 1293, p. 2, July 20, 1945.

1952. *Reithrodontomys gracilis harrisi* Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 136, Jan. 16, 1952.

Type Locality.—Hacienda Santa María, 18 miles northeast of Liberia, Guanacaste, Costa Rica. Altitude, 3,200 feet. *Range.*—Known only from type locality, but probably ranging on Pacific coastal slopes and plain northward into Nicaragua and southward in Costa Rica (Hooper, loc. cit.).

Reithrodontomys dariensis Pearson*

1939. *Reithrodontomys dariensis* Pearson, Not. Naturae Acad. Nat. Sci. Philadelphia, No. 6, p. 1, June 8, 1939.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Known only from type locality, but probably occurring elsewhere in lowlands of Panamá and Colombia. A specimen from Gatún, Panamá Canal Zone, may be an example of *dariensis* (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 137, Jan. 16, 1952).

Reithrodontomys mexicanus mexicanus (Saussure)*

1860. *R[eithrodon] mexicanus* Saussure, Rev. Mag. Zool., ser. 2, vol. 12, p. 109.

1884. *Ochetodon mexicanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1901. *Reithrodontomys costaricensis jalapae* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 552, Nov. 29, 1901. (Jalapa, Veracruz, México. Altitude, 4,000 feet.)

1901. *Reithrodontomys goldmani* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 552, Nov. 29, 1901. (Metlatoyuca, Puebla, México. Altitude, 800 feet.)

1914. *Reithrodontomys mexicanus mexicanus* A. H. Howell, North Amer. Fauna No. 36, p. 70, June 5, 1914.

Type Locality.—Mountains of Veracruz, México (restricted to Mirador, Veracruz, by Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 140, Jan. 16, 1952). *Range.*—Moderate elevations on slopes of mountains of eastern México entirely within drainage of Gulf of Mexico. Known range from mountains near Gómez Farías, southwestern Tamaulipas, south to Totontepec, Oaxaca. Vertical range from 800 feet at Metlatoyuca to 6,000 feet at Totontepec (Hooper, loc. cit.).

Reithrodontomys mexicanus scansor Hooper

1950. *Reithrodontomys mexicanus scansor* Hooper, Journ. Washington Acad. Sci., vol. 40, No. 12, p. 418, Dec. 22, 1950.

Type Locality.—Villa Flores, Chiapas, México. Altitude, 2,000 feet. *Range.*—Interior arid tropical valleys in southwestern Chiapas. Known range from Cintalapa, 1,700 feet, southeast to Villa Flores, 2,000 feet.

Reithrodontomys mexicanus howelli Goodwin*

1932. *Reithrodontomys mexicanus howelli* Goodwin, Amer. Mus. Nov., No. 560, p. 1, Sept. 16, 1932.

Type Locality.—Chichicastenango (on some maps Santo Tomás), El Quiché, western Guatemala. Altitude, 6,500 feet. *Range.*—Mountains of eastern and central Chiapas and of western and central Guatemala. Known range from vicinity of Bochil, Chiapas, southeast to San Pedro Yepocapa and Sierra de las Minas, Guatemala. Vertical range from approximately 3,500 feet near Prusia, Chiapas, to 6,400 feet near Chajul, Guatemala (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 145, Jan. 16, 1952).

Reithrodontomys mexicanus orinus Hooper*

1949. *Reithrodontomys mexicanus orinus* Hooper, Proc. Biol. Soc. Washington, vol. 62, p. 169, Nov. 16, 1949.

Type Locality.—Hacienda Chilata, about 12 miles southeast of Sonsonate, near summit of Balsam Range, Sonsonate, El Salvador. Altitude, 2,000 feet. *Range.*—Mountain slopes of El Salvador and of southeastern Guatemala; from San Rafael and Lago de Amatitlán, Guatemala, southeast in coastal chain of volcanoes to Balsam Range, El Salvador, and southeast on southern flanks of interior highlands of El Salvador as far as Cerro Cacaguatique; vertical range from 2,000 feet at Hacienda Chilata to 7,000 feet at San Rafael, Guatemala (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 147–148, Jan. 16, 1952).

Reithrodontomys mexicanus ocotepequensis Goodwin

1937. *Reithrodontomys mexicanus ocotepequensis* Goodwin, Amer. Mus. Nov., No. 921, p. 1, May 3, 1937.

Type Locality.—Monte Verde, 30 miles northwest of city of Ocotepeque, Ocotepeque, Honduras. Altitude, 4,500 feet. *Range.*—Interior highlands of western Honduras and extreme northern El Salvador. Known range from Monte Verde west to Monte Linderos, 5,700 feet, Honduras, and south to Los Escsmiles, 8,000 feet, El Salvador (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 149, Jan. 16, 1952).

Reithrodontomys mexicanus lucifrons A. H. Howell†*

1932. *Reithrodontomys mexicanus lucifrons* A. H. Howell, Proc. Biol. Soc. Washington, vol. 45, p. 125, July 30, 1932.

1932. *Reithrodontomys mexicanus minusculus* A. H. Howell†, Proc. Biol. Soc. Washington, vol. 45, p. 125, July 30, 1932. (Comayaguela, just south of Tegucigalpa, Francisco Morazán, Honduras. Altitude, 3,000 feet.)

Type Locality.—Cerro Cantoral, about 15 miles (air line) north-northwest of Tegucigalpa, Francisco Morazán, Honduras. Altitude, about 6,000 feet. *Range.*—Highlands of central and eastern Honduras and northwestern Nicaragua. Known range from vicinity of Muya, Honduras, southeast to Río Coco (probably headwaters near Ocotal), Nicaragua. Vertical range from approximately 3,500 feet at Comayaguela to 6,000 feet on Cerro Cantoral, Honduras (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 150, Jan. 16, 1952).

Reithrodontomys mexicanus cherrii (J. A. Allen)*

1891. *Hesperomys (Vesperimus) cherrii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 211, Apr. 17, 1891.

1895. *Reithrodontomys costaricensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 139, May 21, 1895. (La Carpintera, Cartago, Costa Rica. Altitude, 5,000 feet.)

1914. *Reithrodontomys mexicanus cherrii* A. H. Howell, North Amer. Fauna No. 36, p. 73, June 5, 1914.

Type Locality.—San José, San José, Costa Rica (see Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 383, Dec. 31, 1946). *Range.*—Cordillera Central and northern part of Cordillera de Talamanca. Known range from vicinity of Zarcero (Tapesco), Alajuela, southeast to Volcán de Irazú in Cordillera Central and to El Copey de Dota in Cordillera de Talamanca. Vertical range from approximately 3,000 feet at Villa Colón and San José to 7,000 feet at Estrella de Cartago (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 152–153, Jan. 16, 1952).

Reithrodontomys mexicanus potrerograndei Goodwin

1945. *Reithrodontomys mexicanus potrerograndei* Goodwin, Amer. Mus. Nov., No. 1293, p. 1, July 20, 1945.

Type Locality.—Agua Buena (locally known as Cañas Gordas, but about 30 air-line miles north of Cañas Gordas near Panamá boundary), Sabanna de Potrero Grande, Puntarenas, Costa Rica. Altitude, about 3,500 feet. *Range.*—Pacific slopes of Cordillera de Talamanca of eastern Costa Rica and extreme western Panamá. Known range from Agua Buena, Costa Rica, to localities on slopes of Cerro Pando, Panamá. Vertical range from 3,500 feet at Agua Buena to about 4,000 feet on Río Colorado (Siola) and Río Chebo, Panamá (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 154–155, Jan. 16, 1952).

Reithrodontomys mexicanus garichensis Enders and Pearson*

1940. *Reithrodontomys mexicanus garichensis* Enders and Pearson, Not. Naturae Acad. Nat. Sci. Philadelphia, No. 60, p. 1, Oct. 8, 1940.

Type Locality.—Río Gariché, 5 miles southwest of El Volcán Post Office, Chiriquí, Panamá. Altitude, 3,200 feet. *Range.*—Cordillera de Talamanca of western Panamá and possibly of extreme southeastern Costa Rica. As now known, confined to Volcán de Chiriquí and slopes of adjoining mountains. Vertical range from 3,200 feet on Río Gariché to 7,000 feet at Casita Alta, near Bóquete; one subadult specimen known from 11,000 feet in crater of Volcán de Chiriquí (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 156, Jan. 16, 1952).

Reithrodontomys brevirostris Goodwin*

1943. *Reithrodontomys brevirostris* Goodwin, Amer. Mus. Nov., No. 1231, p. 1, June 2, 1943.

Type Locality.—Canyons above Villa Quesada, Alajuela, Costa Rica. Altitude, 5,000 feet. *Range.*—Cordillera Central of Costa Rica. Known range confined to Caribbean watershed from Villa Quesada south to Estrella de Cartago. Vertical range from 5,600 feet at Zapote to approximately 7,500 feet near Villa Quesada (Hooper, Univ. Mich. Mus. Zool. Misc. Publ. 77, p. 163, Jan. 16, 1952).

tenuirostris—group

Reithrodontomys microdon microdon Merriam†*

1901. *Reithrodontomys microdon* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 548, Nov. 29, 1901.

Type Locality.—Todos Santos (southeast of Nentón), Huehuetenango, Guatemala. Altitude, 10,000 feet. *Range.*—High mountains of Guatemala and extreme southern México. Vertical range from approximately 7,300 feet near San Cristóbal, Chiapas, to 10,500 feet at Chemal, Guatemala (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 170, Jan. 16, 1952).

Reithrodontomys microdon albilabris Merriam†*

1901. *Reithrodontomys microdon albilabris* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 549, Nov. 29, 1901.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Reithrodontomys microdon wagneri Hooper

1950. *Reithrodontomys microdon wagneri* Hooper, Proc. Biol. Soc. Washington, vol. 63, p. 169, Dec. 29, 1950.

Type Locality.—Western flanks of Cerro San Andrés, about 10 miles northwest of Ciudad Hidalgo, Michoacán, México. Altitude, 9,400 feet. *Range.*—Known only from two localities, in Distrito Federal and Michoacán, but probably occurring elsewhere on mountains that rim southern end of Mexican Plateau. Known vertical range 9,200 to 10,000 feet in Cañon Contreras, near city of México.

Reithrodontomys tenuirostris Merriam†*

1901. *Reithrodontomys tenuirostris* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 547, Nov. 29, 1901.

1901. *Reithrodontomys tenuirostris aureus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 548, Nov. 29, 1901. (Calel, southwest of Momostenango, Quezaltenango, Guatemala. Altitude, 10,200 feet.)

Type Locality.—Todos Santos (southeast of Nentón), Huehuetenango, Guatemala. Altitude, 10,000 feet. *Range.*—Highlands of Guatemala and probably of southeastern Chiapas, México. Known from one locality in Sierra Cuchumatanes and several localities in Sierra Madre from Volcán de Tajumulco south to Mataquescuintla. Known vertical range from 8,000 to 10,400 feet on Volcán de Tajumulco (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, pp. 171–172, Jan. 16, 1952).

Reithrodontomys rodriguezi Goodwin

1943. *Reithrodontomys rodriguezi* Goodwin, Amer. Mus. Nov., No. 1231, p. 1, June 2, 1943.

Type Locality.—Volcán de Irazú, Cartago, Costa Rica. Altitude, 9,400 feet. *Range.*—Known from type locality only.

Reithrodontomys creper Bangs*

1902. *Reithrodontomys creper* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 39, Apr. 1902.

Type Locality.—Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 11,000 feet. *Range.*—Mountains of Costa Rica and western Panamá. Known range from Volcán de Irazú, Costa Rica, south in Cordillera de Talamanca to vicinity of Volcán de Chiriquí, Panamá. Vertical range from 7,500 to 11,000 feet on Volcán de Chiriquí (Hooper, Univ. Michigan Mus. Zool. Misc. Publ. 77, p. 175, Jan. 16, 1952).

Genus PEROMYSCUS Gloger (white-footed mice)

1841. *Peromyscus* Gloger, Gemeinnütziges Hand- und Hilfsbuch der Naturgeschichte, vol. 1, p. 95. (Type, *Peromyscus arboreus* Gloger=*Mus sylvaticus noveboracensis* Fischer.)

Subgenus HAPLOMYLOMYS[12] Osgood

1904. *Haplomylomys* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 53, Mar. 21, 1904. (Type, *Hesperomys eremicus* Baird.)

Peromyscus crinitus crinitus[13] (Merriam)†*

1891. *Hesperomys crinitus* Merriam, North Amer. Fauna No. 5, p. 53, July 30, 1891.

1899. *Peromyscus crinitus scitulus* Bangs, Proc. New England Zool. Club, vol. 1, p. 67, July 31, 1899. (Gardnerville, Douglas County, Nev.)

Type Locality.—Shoshone Falls, north side of Snake River, Jerome County, Idaho. *Range.*—Oregon east of Cascades, southwestern Idaho east to Shoshone Falls, south through northeastern California and western Nevada to latitude of Walker Lake (Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, p. 56, Feb. 14, 1942).

Peromyscus crinitus pergracilis Goldman†*

1939. *Peromyscus crinitus pergracilis* Goldman, Journ. Mamm., vol. 20, No. 3, p. 356, Aug. 14, 1939.

Type Locality.—South end of Stansbury Island, Great Salt Lake, Tooele County, Utah. Altitude, 4,250 feet. *Range.*—White Pine County and adjoining parts of Elko and Eureka Counties in eastern Nevada (Hall, Mammals of Nevada, p. 508, July 1, 1946), and western Utah (Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, p. 58, Feb. 14, 1942).

Peromyscus crinitus doutti Goin*

1944. *Peromyscus crinitus doutti* Goin, Journ. Mamm., vol. 25, No. 2, p. 189, May 26, 1944.

Type Locality.—Antelope Canyon, 20 miles southeast of Duchesne, Duchesne County, Utah. Altitude, 7,200 feet. *Range.*—Utah, between Green River on east and Wasatch Mountains and Fish Lake Plateau on west, and from Wyoming border (one specimen from Sweetwater County, Wyo., one mile north of Linwood, Utah) south at least to central Garfield County (see also Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 78, Feb. 15, 1951).

Peromyscus crinitus auripectus (J. A. Allen)*

1893. *Sitomys auripectus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 75, Apr. 28, 1893.

1909. *Peromyscus crinitus auripectus* Osgood, North Amer. Fauna No. 28, p. 23, Apr. 17, 1909.

1937. *Peromyscus crinitus peridoneus* Goldman†, Journ. Mamm., vol. 18, No. 1, p. 92, Feb. 11, 1937. (Bright Angel Trail, south side of Grand Canyon, Coconino County, Ariz. Altitude, 4,800 feet. Regarded as identical with *auripectus* by Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, p. 64, Feb. 14, 1942.)

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[12] Revised by Osgood, North Amer. Fauna No. 28, pp. 228–252, Apr. 17, 1909.

[13] Races of *Peromyscus crinitus* revised by Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, pp. 51–56, Feb. 14, 1942.

Type Locality.—Bluff City, San Juan County, Utah. *Range.*—Southern Wyoming, Utah east of Green and Colorado Rivers (Goin, Journ. Mamm., vol. 25, No. 2, p. 190, May 26, 1944), western Colorado, northwestern New Mexico, and northeastern Arizona west to Supai (Hall and Hoffmeister, loc. cit.).

Peromyscus crinitus stephensi Mearns†*

1897. *Peromyscus stephensi* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 721, July 30, 1897.

1904. *Peromyscus petraius* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 244, Jan. 7, 1904. (Lone Pine, Inyo County, Calif.)

1909. *Peromyscus crinitus stephensi* Osgood, North Amer. Fauna No. 28, p. 232, Apr. 17, 1909.

Type Locality.—Lowest water on wagon road in canyon at eastern base of Coast Range, near Mexican boundary [=3 miles east of Mountain Spring], Imperial County, Calif. (See A. B. Howell, Journ. Mamm., vol. 4, No. 4, p. 266, Nov. 1, 1923.) *Range*—Southern Nevada from about latitude of Walker Lake, southwestern Utah, and western Arizona south to Gila River; southward through southeastern California and northeastern Baja California to San Felipe (Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, p. 59, Feb. 14, 1942).

Peromyscus crinitus pallidissimus Huey

1931. *Peromyscus crinitus pallidissimus* Huey, Trans. San Diego Soc. Nat. Hist., vol. 6, No. 26, p. 389, Aug. 28, 1931.

Type Locality.—Small island in Gonzaga Bay, lat. 29°50′ N., long. 114°20′ W., Gulf of California, Baja California, México. *Range.*—Known from type locality only.

Peromyscus crinitus disparilis Goldman†*

1932. *Peromyscus crinitus disparillis* [sic] Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 90 (correct spelling on p. 91), June 21, 1932.

1940. *Peromyscus crinitus rupicolus* Benson, Proc. Biol. Soc. Washington, vol. 53, p. 2, Feb. 16, 1940. (Paso MacDougal, east end of Sierra Hornaday, Sonora, México. Regarded as *disparilis* by Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, p. 62, Feb. 14, 1942.)

1940. *Peromyscus crinitus scopulorum* Benson, Proc. Biol. Soc. Washington, vol. 53, p. 2, Feb. 16, 1940. (Cerro La Cholla, 6 miles west-northwest of Punta Peñasca, Sonora, México. Regarded as *disparilis* by Hall and Hoffmeister, Journ. Mamm., vol. 23, No. 1, p. 62, Feb. 14, 1942.)

Type Locality.—Tinajas Altas, Gila Mountains, Yuma County, Ariz. Altitude, 2,000 feet. *Range.*—Southwestern Arizona, south of Gila River, and northwestern Sonora south to near Punta Peñasca (Hall and Hoffmeister, loc. cit.).

Peromyscus crinitus delgadilli Benson

1940. *Peromyscus crinitus delgadilli* Benson, Proc. Biol. Soc. Washington, vol. 53, p. 1, Feb. 16, 1940.

Type Locality.—Two miles south of Crater Elegante, Sierra del Pinacate, 34 miles west of Sonoyta, Sonora, México. *Range.*—Pinacate lava field, northwestern Sonora, México.

Peromyscus collatus Burt

1932. *Peromyscus collatus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 172, Oct. 31, 1932.

Type Locality.—Turner's Island, lat. 28° 43′ N., long. 112° 19′ W., Gulf of California, Sonora, México. *Range.*—Turner's Island.

Peromyscus pseudocrinitus Burt

1932. *Peromyscus pseudocrinitus* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 173, Oct. 31, 1932.

Type Locality.—Coronados Island, lat. 26° 60′ N., long. 111° 18′ W., Gulf of California, Baja California, México. *Range.*—Coronados Island.

Peromyscus californicus californicus (Gambel)*

1848. *Mus californicus* Gambel, Proc. Acad. Nat. Sci. Philadelphia, vol. 4, 1848–1849, p. 78, August 1848.

1884. *Hesperomys californicus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1895. *Peromyscus californicus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 34, Feb. 21, 1895.

Type Locality.—Monterey, Monterey County, Calif. *Range.*—Coastal strip of west-central California, from vicinity of Monterey south to (presumptively) northwestern Santa Barbara County; this area lies altogether west of Salinas Valley and for the most part within fog belt (Grinnell and Orr, Journ. Mamm., vol. 15, No. 3, p. 216, Aug. 10, 1934).

Peromyscus californicus benitoensis Grinnell and Orr*

1934. *Peromyscus californicus benitoensis* Grinnell and Orr, Journ. Mamm., vol. 15, No. 3, p. 216, Aug. 10, 1934.

Type Locality.—Near Cook Post Office, Bear Valley, San Benito County, Calif. Altitude, 1,300 feet. *Range.*—Salinas Valley and inner Coast Ranges of west-central California, from and including San Benito County south at least to San Luis Obispo County.

Peromyscus californicus parasiticus (Baird)†*

1858. [*Hesperomys*] *parasiticus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857) p. 479, July 14, 1858.

1934. *Peromyscus californicus parasiticus* Grinnell and Orr, Journ. Mamm., vol. 15, No. 3, p. 213, Aug. 10, 1934.

Type Locality.—Santa Clara Valley [probably near Mountain View], Santa Clara County, Calif. *Range.*—That portion of west-central California lying south from Golden Gate and San Francisco Bay to (through) Santa Cruz County; east to include parts of Contra Costa, Alameda, and northwestern Santa Clara Counties (Grinnell and Orr, Journ. Mamm., vol. 15, No. 3, p. 214, Aug. 10, 1934).

Peromyscus californicus mariposae Grinnell and Orr*

1934. *Peromyscus californicus mariposae* Grinnell and Orr, Journ. Mamm., vol. 15, No. 3, p. 217, Aug. 10, 1934.

Type Locality.—El Portal, Mariposa County, Calif. Altitude, 2,500 feet. *Range.*—Lower western slopes of southern Sierra Nevada, south at least from northwestern Mariposa County to Kern County, Calif.

Peromyscus californicus insignis Rhoads*

1895. *Peromyscus insignis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 33, Feb. 21, 1895.

1907. *Peromyscus californicus insignis* Mearns, U. S. Nat. Mus. Bull. 56, p. 429, Apr. 13, 1907.

Type Locality.—Dulzura, San Diego County, Calif. *Range.*—Southern coastal district of California at least from Ventura County (probably eastern Santa Barbara County) south, west of interior deserts, to San Quintín (lat. 30° 29′ N.), Baja California, México, including San Bernardino and San Jacinto Mountains in California and Sierra Juárez and Sierra San Pedro Mártir in northern Baja California (Grinnell and Orr, Journ. Mamm., vol. 15, No. 3, p. 218, Aug. 10, 1934).

Peromyscus eremicus eremicus (Baird)†*

1858. *Hesperomys eremicus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 479, July 14, 1858.

1884. *Hesperomys leucopus eremicus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1895. *Peromyscus eremicus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 226, June 29, 1895.

1896. *Peromyscus eremicus arenarius* Mearns†, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 2, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 138, Dec. 21, 1896. Near El Paso, El Paso County, Tex.)

Type Locality.—Old Fort Yuma, Imperial County, Calif., on Colorado River opposite Yuma, Ariz. *Range.*—Lower Sonoran Zone of northeastern Baja California east of mountain ranges from vicinity of San Luis Bay northward through Colorado Desert and eastern portion of Mohave Desert in Imperial and extreme eastern San Diego Counties to north end of Death Valley, Inyo County, and west from Valley of Colorado River to Victorville and Oro Grande, San Bernardino County, and to Banning, Riverside County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 172, Sept. 26, 1933); and from northwestern Sonora, except Pinacate region, from as far east as Providencia mines, south and west to Hermosillo (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 55, Feb. 15, 1938), northward through western Arizona to southern Nevada (Hall, Mammals of Nevada, p. 509, July 1, 1946) and southwestern Utah; and from southern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 158, Mar. 1, 1932) and western Texas (see Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, pp. 30–31, Aug. 7, 1942) southward through eastern Chihuahua and Coahuila to northeastern Durango, México.

Peromyscus eremicus fraterculus (Miller)*

1892. *Vesperimus fraterculus* Miller, Amer. Nat., vol. 26, p. 261, March 1892.

1893. *Sitomys herronii* Rhoads, Amer. Nat., vol. 27, p. 832, September 1893. (Reche Canyon, San Bernardino County, Calif.)

1894. *Sitomys herroni nigellus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 257, Oct. 23, 1904. (West Cajon Pass, San Bernardino County, Calif.)

1898. *P[eromyscus] eremicus fraterculus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 154, Apr. 12, 1898.

1903. *Peromyscus homochroia* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 158, May 7, 1903. (San Quintín, Baja California, México.)

Type Locality.—Dulzura, San Diego County, Calif. *Range.*—Northwestern Baja California northward through San Diegan district, entirely west of higher mountains, as far as Nordhoff, Ventura County; eastward to Campo, San Diego County, and Redlands, San Bernardino County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 173, Sept. 26, 1933).

Peromyscus eremicus cedrosensis J. A. Allen*

1898. *Peromyscus cedrosensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 154, Apr. 12, 1898.

1909. *Peromyscus eremicus cedrosensis* Osgood, North Amer. Fauna No. 28, p. 244, Apr. 17, 1909.

Type Locality.—Cerros (Cedros) Island, Baja California, México. *Range.*—Cedros Island.

Peromyscus eremicus eva Thomas*

1898. *Peromyscus eva* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 44, January 1898.

1898. *Peromyscus eremicus propinquus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 154, Apr. 12, 1898. (San Pablo Point, Baja California, México.)

1909. *Peromyscus eremicus eva* Osgood, North Amer. Fauna No. 28, p. 245, Apr. 17, 1909.

Type Locality.—San José del Cabo, Baja California, México. *Range.*—Lower Sonoran Zone of central and southern part of Peninsula of Baja California, from Cape San Lucas north to vicinity of lat. 29° N., meeting ranges of *eremicus* and *fraterculus.*

Peromyscus eremicus polypolius Osgood†*

1909. *Peromyscus eremicus polypolius* Osgood, North Amer. Fauna No. 28, p. 248, Apr. 17, 1909.

Type Locality.—[Santa] Margarita Island, off west coast of southern Baja California, México. *Range.*—Confined to Santa Margarita Island.

Peromyscus eremicus avius Osgood†*

1909. *Peromyscus eremicus avius* Osgood, North Amer. Fauna No. 28, p. 247, Apr. 17, 1909.

Type Locality.—Ceralbo Island, Gulf of California, Baja California, México. *Range.*—Confined to Ceralbo Island.

Peromyscus eremicus insulicola Osgood†*

1909. *Peromyscus eremicus insulicola* Osgood, North Amer. Fauna No. 28, p. 246, Apr. 17, 1909.

Type Locality.—Espíritu Santo Island, Gulf of California, Baja California, México. *Range.*—Confined to Espíritu Santo Island.

Peromyscus eremicus cinereus Hall

1931. *Peromyscus eremicus cinereus* Hall, Proc. Biol. Soc. Washington, vol. 44, p. 87, June 29, 1931.

Type Locality.—San José Island, lat. 25° N., Baja California, México. *Range.*—San José Island.

Peromyscus eremicus carmeni Townsend†*

1912. *Peromyscus eremicus carmeni* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 126, June 14, 1912.

Type Locality.—Carmen Island, Gulf of California, Baja California, México. *Range.*—Carmen Island.

Peromyscus eremicus anthonyi (Merriam)†*

1887. *Hesperomys* (*Vesperimus*) *anthonyi* Merriam, Proc. Biol. Soc. Washington, vol. 4, p. 5, Apr. 15, 1887.

1907. *Peromyscus eremicus anthonyi* Mearns, U. S. Nat. Mus. Bull. 56, p. 438, Apr. 13, 1907.

Type Locality.—Camp Apache, Big Hachita Mountains, Hidalgo County, N. Mex. *Range.*—Extreme southeastern Arizona and southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 160, Mar. 1, 1932) south through Sonora (Burt, op. cit, p. 56) west of Sierra Madre to northern Sinaloa, México.

Peromyscus eremicus pullus Blossom*

1933. *Peromyscus eremicus pullus* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 265, p. 3, June 21, 1933.

Type Locality.—Black Mountain, 10 miles south of Tucson, Pima County, Ariz. *Range.*—Black Mountain.

Peromyscus eremicus papagensis Goldman†*

1917. *Peromyscus eremicus papagensis* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 110, May 23, 1917.

Type Locality.—Sierra Pinacate, Sonora, México. *Range.*—Known from type locality only.

Peromyscus eremicus tiburonensis Mearns†*

1897. *Peromyscus tiburonensis* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 720, July 30, 1897.

1909. *Peromyscus eremicus tiburonensis* Osgood, North Amer. Fauna No. 28, p. 250, Apr. 17, 1909.

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Tiburón Island and immediately adjacent mainland.

Peromyscus eremicus phaeurus Osgood†*

1904. *Peromyscus eremicus phaeurus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 75, Mar. 21, 1904.

Type Locality.—Hacienda la Parada, San Luis Postosí, México. *Range.*—Middle part of Mexican tableland in States of San Luis Potosí, Zacatecas, and Nuevo León.

Peromyscus merriami merriami Mearns†*

1896. *Peromyscus merriami* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 2, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 138, Dec. 21, 1896.)

1952. *Peromyscus merriami merriami* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 368, Dec. 15, 1952.

Type Locality.—Sonoyta, Sonora, México.

Peromyscus merriami goldmani Osgood†*

1904. *Peromyscus goldmani* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 75, Mar. 21, 1904. (Regarded as identical with *anthonyi* by Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 57, Feb. 15, 1938.)

1952. *Peromyscus merriami goldmani* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 368, Dec. 15, 1952.

Type Locality.—Alamos, Sonora, México.

Peromyscus caniceps Burt

1932. *Peromyscus caniceps* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 174, Oct. 31, 1932.

Type Locality.—Monserrate Island, lat. 25°38′ N., long. 111°02′ W., Gulf of California, Baja California, México. *Range.*—Monserrate Island.

Peromyscus guardia guardia Townsend†*

1912. *Peromyscus guardia* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 126, June 14, 1912.

Type Locality.—Angel de la Guarda Island, Gulf of California, Baja California, México. *Range.*—Angel de la Guarda Island.

Peromyscus guardia mejiae Burt

1932. *Peromyscus guardia mejiae* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 174, Oct. 31, 1932.

Type Locality.—Mejía Island, lat. 29°33′ N., long. 113°35′ W., Gulf of California, Baja California, México. *Range.*—Mejía Island.

Peromyscus guardia interparietalis Burt

1932. *Peromyscus guardia interparietalis* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 175, Oct. 31, 1932.

Type Locality.—South San Lorenzo Island, lat. 28°36′ N., long. 112°51′ W., Gulf of California, Baja California, México. *Range.*—South San Lorenzo Island.

Peromyscus dickeyi Burt

1932. *Peromyscus dickeyi* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 176, Oct. 31, 1932.

Type Locality.—Tortuga Island, lat. 27°21′ N., long. 111°54′ W., Gulf of California, Baja California, México. *Range.*—Tortuga Island.

Peromyscus pembertoni Burt

1932. *Peromyscus pembertoni* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 176, Oct. 31, 1932.

Type Locality.—San Pedro Nolasco Island, lat. 27°58′ N., long. 111°24′ W., Gulf of California, Sonora, México. *Range.*—San Pedro Nolasco Island.

Peromyscus stephani Townsend†*

1912. *Peromyscus stephani* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 126, June 14, 1912.

Type Locality.—San Esteban Island, Gulf of California, Baja California, México. *Range.*—San Esteban Island.

Subgenus PEROMYSCUS[14] Gloger

1894. *Trinodontomys* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 257, October 1894. (Type, *Sitomys insolatus* Rhoads=*Hesperomys sonoriensis* Le Conte.)

Peromyscus maniculatus maniculatus (Wagner)*

1845. *Hesperomys maniculatus* Wagner, Arch. Naturg., Jahrg. 11, vol. 1, p. 148.

1877. [*Hesperomys*] *arcticus* Coues†, Monographs of North American Rodentia (U. S. Geol. and Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 61. (Labrador. See also p. 67.)

1877. [*Hesperomys*] *bairdii* Coues†, Monographs of North American Rodentia (U. S. Geol. and Geogr. Surv. Terr., Rep., vol. 11, Washington), pp. 61 and 67. (Labrador. Not *Mus bairdii* Hoy and Kennicott, 1857.)

1897. *Peromyscus canadensis umbrinus* Miller, Proc. Boston Soc. Nat. Hist., vol. 28, p. 23, Apr. 30, 1897. (Peninsula Harbor, north shore of Lake Superior, Ontario, Canada.)

1898. *Peromyscus maniculatus* Bangs, Amer. Nat., vol. 32, p. 496, July 1898.

Type Locality.—The Moravian Settlements in Labrador. *Range.*—From east end of Hudson Strait (Port Burwell, Quebec) south along Labrador coast to Strait of Belle Isle, west through Hudsonian Zone to southeast side of Hudson Bay, and around James Bay to west side of Hudson Bay; south to southern border of Hudsonian Zone in Quebec and northern Ontario to north shore of Lake Superior (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 135, Jan. 24, 1947).

Peromyscus maniculatus plumbeus C. F. Jackson*

1939. *Peromyscus maniculatus plumbeus* C. F. Jackson, Proc. Biol. Soc. Washington, vol. 52, p. 101, June 5, 1939.

Type Locality.—Pigou River, north shore of the Gulf of St. Lawrence, Saguenay County, Quebec, Canada. *Range.*—From Pigou River westward to Bay of Seven Islands; limits of range unknown.

Peromyscus maniculatus anticostiensis Moulthrop

1937. *Peromyscus maniculatus anticostiensis* Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 3, p. 11, Dec. 4, 1937.

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[14] Revised by Osgood, North Amer. Fauna No. 28, pp. 33–218, Apr. 17, 1909.

Type Locality.—Fox Bay, eastern end of Anticosti Island, Gulf of St. Lawrence, Quebec, Canada. *Range.*—Known only from type locality, but undoubtedly ranging over all of Anticosti Island, since Fox Basin region is typical of entire island.

Peromyscus maniculatus eremus Osgood†*

1909. *Peromyscus maniculatus eremus* Osgood, North Amer. Fauna No. 28, p. 47, Apr. 17, 1909.

Type Locality.—Pleasant Bay, Grindstone Island, Magdalen Islands, Quebec, Canada. *Range.*—Grindstone Island.

Peromyscus maniculatus abietorum Bangs*

1896. *Peromyscus canadensis abietorum* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 49, Mar. 9, 1896.

1909. *Peromyscus maniculatus abietorum* Osgood, North Amer. Fauna No. 28, p. 45, Apr. 17, 1909.

Type Locality.—James River, Nova Scotia, Canada. *Range.*—Nova Scotia (including Cape Breton Island), New Brunswick (except Grand Manan Island), Prince Edward Island, Gaspé Peninsula and south shore of St. Lawrence in province of Quebec as far west as Rivière-du-Loup (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 136, Jan. 24, 1947); south to central Maine.

Peromyscus maniculatus argentatus Copeland and Church*

1906. *Peromyscus canadensis argentatus* Copeland and Church, Proc. Biol. Soc. Washington, vol. 19, p. 122, Sept. 6, 1906.

1909. *Peromyscus maniculatus argentatus* Osgood, North Amer. Fauna No. 28, p. 46, Apr. 17, 1909.

Type Locality.—Grand Harbor, Grand Manan Island, New Brunswick, Canada. *Range.*—Grand Manan Island.

Peromyscus maniculatus gracilis (Le Conte)†*

1855. *H[esperomys] gracilis* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 442.

1893. *Sitomys americanus canadensis* Miller, Proc. Biol. Soc. Washington, vol. 8, p. 55, June 20, 1893. (Peterboro, Madison County, N. Y.)

1909. *Peromyscus maniculatus gracilis* Osgood, North Amer. Fauna No. 28, p. 42, Apr. 17, 1909.

Type Locality.—Michigan. *Range.*—Northeastern United States and southern Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 139, Jan. 24, 1947) from northern Minnesota east through northern Wisconsin, Michigan (Burt, Mammals of Michigan, p. 207, 1946), Ontario, Quebec, and New York, to western New England. Zonal range, Canadian.

Peromyscus maniculatus nubiterrae Rhoads*

1896. *Peromyscus leucopus nubiterrae* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 48, p. 187, April 1896.

1909. *Peromyscus maniculatus nubiterrae* Osgood, North Amer. Fauna No. 28, p. 47, Apr. 17, 1909.

Type Locality.—Summit of Roan Mountain, Mitchell County, N. C. Altitude, 6,370 feet. *Range.*—Allegheny and Blue Ridge Mountains and adjacent Ranges from western Pennsylvania south through eastern West Virginia, western Virginia, western Kentucky (Barbour, Journ. Mamm., vol. 22, No. 2, p. 195, June 1, 1947), to eastern Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 278, Feb. 14, 1939), western North Carolina and northeastern Georgia. Zonal range, Canadian.

Peromyscus maniculatus borealis Mearns*

1890. *Hesperomys leucopus arcticus* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 285, Feb. 21, 1890. (Not *Hesperomys arcticus* Coues, 1877.)

1900. *Peromyscus maniculatus arcticus* Osgood, North Amer. Fauna No. 19, p. 33, Oct. 6, 1900.

1911. *Peromyscus maniculatus borealis* Mearns, Proc. Biol. Soc. Washington, vol. 24, p. 102, May 15, 1911. (Substitute for *arcticus* Mearns.)

Type Locality.—Fort Simpson, Mackenzie District, Northwest Territories, Canada. *Range.*—Interior of northwest Canada; from northern Saskatchewan north along Mackenzie River regularly at least to Fort Norman and casually to Fort Good Hope and farther north; west to upper waters of Yukon, and thence through Liard Valley and upper Peace River region of northeastern British Columbia, and northern and central Alberta and Saskatchewan as far south as Jasper and Banff National Parks; intergrading with *algidus* in southwestern Yukon and northwestern British Columbia, with *artemisiae* in north-central British Columbia, and with *osgoodi* in central Alberta and Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 138, Jan. 24, 1947).

Peromyscus maniculatus algidus Osgood†*

1909. *Peromyscus maniculatus algidus* Osgood, North Amer. Fauna No. 28, p. 56, Apr. 17, 1909.

Type Locality.—Head of Lake Bennett (site of old Bennett City), British Columbia, Canada. *Range.*—Southern Alaska near head of Lynn Canal (Haines, Skagway, White Pass), northwestern British Columbia west of northern part of Coast Range (Bennett and Cheonnee Mountains), and southwestern Yukon from Lake Bennett to lower part of Lewes River (Lake Tagish, Whitehorse) and to Lake Dezadeash, 60 miles west of Whitehorse, at headwaters of Alsek River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 136, Jan. 24, 1947).

Peromyscus maniculatus hylaeus Osgood†*

1908. *Peromyscus hylaeus* Osgood, Proc. Biol. Soc. Washington, vol. 21, p. 141, June 9, 1908.

1909. *Peromyscus maniculatus hylaeus* Osgood, North Amer. Fauna No. 28, p. 53, Apr. 17, 1909.

Type Locality.—Hollis, Kasaan Bay, Prince of Wales Island, Alaska. *Range.*—Islands and coast of southeast Alaska west and northwest of range of *macrorhinus*, including Prince of Wales, Kupreanof, Mitkof, and Admiralty Islands, and mainland coast from Lynn Canal to Frederick Sound.

Peromyscus maniculatus macrorhinus (Rhoads)*

1894. *Sitomys macrorhinus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 259, October 1894.

1909. *Peromyscus maniculatus macrorhinus* Osgood, North Amer. Fauna No. 28, p. 57, Apr. 17, 1909.

Type Locality.—North Pacific Salmon Cannery, mouth of Skeena River, British Columbia, Canada. *Range.*—Mainland coast of southern Alaska and some adjacent islands (Revillagigedo, Woronkofski, Wrangell) and southward along northwest coast of British Columbia (Metlakatla, Port Simpson; lower Skeena River, Dean Channel, mouth of Dean River, Eucott Bay Hot Springs, Kimsquit, Port John, to Calvert Island and Rivers Inlet), intergrading with *oreas* in southern part of its range and with *hylaeus* in southern Alaska (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 140, Jan. 24, 1947; see also McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, pp. 168–196, February 1945).

Peromyscus maniculatus keeni (Rhoads) *

1894. *Sitomys keeni* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 258, October 1894.

1909. *Peromyscus maniculatus keeni* Osgood, North Amer. Fauna No. 28, p. 55, Apr. 17, 1909.

Type Locality.—Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Moresby and Graham Islands, Queen Charlotte Islands.

Peromyscus maniculatus maritimus McCabe and Cowan

1945. *Peromyscus maniculatus maritimus* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 199, February 1945.

Type Locality.—Largest of Moore Islands, British Columbia, Canada. *Range.*—Moore Island, British Columbia.

Peromyscus maniculatus pluvialis McCabe and Cowan

1945. *Peromyscus maniculatus pluvialis* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 199, February 1945.

Type Locality.—Northern Island of Goose Island Group, lat. 52° N., long. 128° 31′ W., British Columbia, Canada. *Range.*—Restricted to type locality.

Peromyscus maniculatus rubriventer McCabe and Cowan

1945. *Peromyscus maniculatus rubriventer* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 196, February 1945.

Type Locality.—Ruth Island, the small, westernmost member of Hunter Island complex, British Columbia, Canada. *Range.*—Ruth, Hunter, Hunter "B", Smythe, Townsend, Reginald, and in slightly modified form on Campbell, Dufferin, and Horsfall Islands. The Hecate Island and Chatfield Island *Peromyscus*, while intermediate, are closer to this race than to *macrorhinus*.

Peromyscus maniculatus cancrivorus McCabe and Cowan

1945. *Peromyscus maniculatus cancrivorus* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 195, February 1945.

Type Locality.—Table Island, Queen Charlotte Sound, British Columbia, Canada. *Range.*—Confined to Table Island.

Peromyscus maniculatus isolatus Cowan

1935. *Peromyscus sitkensis isolatus* Cowan, Univ. California Publ. Zool., vol. 40, No. 13, p. 134, Nov. 14, 1935.

1945. *Peromyscus maniculatus isolatus* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 194, February 1945.

Type Locality.—Pine Island, Queen Charlotte Sound, off north end of Vancouver Island, British Columbia, Canada. *Range.*—Pine Island and Nigei Island, British Columbia.

Peromyscus maniculatus balaclavae McCabe and Cowan

1945. *Peromyscus maniculatus balaclavae* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 197, February 1945.

Type Locality.—Balaclava Island, British Columbia, Canada. *Range.*—Balaclava and Hope Islands of Gordon Group, adjacent to northern Vancouver Island, British Columbia.

Peromyscus maniculatus saxamans McCabe and Cowan

1945. *Peromyscus maniculatus saxamans* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 198, February 1945.

Type Locality.—Duncan Island, British Columbia, Canada. *Range.*—Duncan and Heard Islands, and in slightly modified form on Bell and Hurst islands, all of Gordon Group.

Peromyscus maniculatus doylei McCabe and Cowan

1945. *Peromyscus maniculatus doylei* McCabe and Cowan, Trans. Roy. Canadian Inst., vol. 25, p. 196, February 1945.

Type Locality.—Doyle Island, Gordon Group, British Columbia, Canada. *Range.*—So far as known confined to Doyle Island, adjacent to northern tip of Vancouver Island.

Peromyscus maniculatus georgiensis Hall

1938. *Peromyscus maniculatus georgiensis* Hall, Amer. Nat., vol. 72, No. 742, p. 455, Sept. 10, 1938.

Type Locality.—Vananda, Texado Island, Georgia Strait, British Columbia, Canada. *Range.*—Known from Savary, Texada, Lasqueti, Thormanby, and Bowen Islands, in Georgia Strait.

Peromyscus maniculatus saturatus Bangs*

1897. *Peromyscus texanus saturatus* Bangs, Amer. Nat., vol. 21, p. 75, January 1897.

1909. *Peromyscus maniculatus saturatus* Osgood, North Amer. Fauna No. 28, p. 61, Apr. 17, 1909.

Type Locality.—Saturna Island, Gulf of Georgia, halfway between cities of Victoria and Vancouver, British Columbia, Canada. *Range.*—Confined to Saturna Island.

Peromyscus maniculatus interdictus Anderson

1932. *Peromyscus maniculatus interdictus* Anderson, Nat. Mus. Canada Bull. 70, p. 110, Nov. 24, 1932.

Type Locality.—Forbidden Plateau, lat. 49°42′ N., long. 125°25′ W., near eastern end of Strathcona Park, north of Mount Albert Edward, and about 17 miles west of Commox, Vancouver Island, British Columbia, Canada. Altitude, about 4,200 feet. *Range.*—Mountains of central and northern Vancouver Island, west to coast on Nootka Sound, and on northern coast (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 139, Jan. 24, 1947).

Peromyscus maniculatus angustus Hall*

1932. *Peromyscus maniculatus angustus* Hall, Univ. California Publ. Zool., vol. 28, No. 12, p. 423, Nov. 8, 1932.

Type Locality.—Beaver Creek, 15 miles northwest of Alberni, Vancouver Island, British Columbia, Canada. *Range.*—Restricted to Vancouver Island, on seacoast and at lower levels in interior, along east coast as far north as Sayward, and on west coast to Nootka Sound (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 136, Jan. 24, 1947).

Peromyscus maniculatus oreas Bangs*

1898. *Peromyscus oreas* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 84, Mar. 24, 1898.

1909. *Peromyscus maniculatus oreas* Osgood, North Amer. Fauna No. 28, p. 51, Apr. 17, 1909.

Type Locality.—Mount Baker Range, British Columbia, Canada, near boundary of Whatcom County, Wash. Altitude, 6,500 feet. *Range.*—Southwestern British Columbia in mountains from Bella Coola area (Stuie, Rainbow Mountains) to Lillooet, approaching coast at Rivers Inlet and Kingcome Inlet, and intergrading with *macrorhinus* on coast in Bella Coola region; intergrading with *austerus* in some areas near international boundary (Chilliwack Valley, Lihumitson Park) on western slopes of Cascades east of coastal plain (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 140, Jan. 24, 1947); and western Washington from Cascade Mountains west to Pacific Ocean, except area occupied by *austerus* along Puget Sound and in lowland strip extending southward to Columbia River (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 330, Apr. 9, 1948).

Peromyscus maniculatus alpinus Cowan*

1937. *Peromyscus maniculatus alpinus* Cowan, Proc. Biol. Soc. Washington, vol. 50, p. 215, Dec. 28, 1937.

Type Locality.—Mount Revelstoke, 19 miles northeast of Revelstoke, British Columbia, Canada. Altitude, 6,000 feet. *Range.*—Definitely known only from vicinity of type locality, and probably does not occur outside of Selkirk Range (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 136, Jan. 24, 1947).

Peromyscus maniculatus artemisiae (Rhoads)*

1894. *Sitomys americanus artemisiae* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 260, October 1894.

1899. *Peromyscus texanus subarcticus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 15, Mar. 4, 1899. (Deerlodge County, Mont.)

1909. *Peromyscus maniculatus artemisiae* Osgood, North Amer. Fauna No. 28, p. 58, Apr. 17, 1909.

Type Locality.—Ashcroft, British Columbia, Canada. *Range.*—Northward in drier parts of interior to east-central British Columbia and eastward along international boundary from east slope of Cascade Mountains to extreme southwestern corner of Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 137, Jan. 24, 1947); southward into northeastern Washington and Blue Mountain region of southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 332, Apr. 9, 1948) and of northeastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 185, Aug. 29, 1936), to Snake River plains, except in Sawtooth and Salmon River Mountains, Idaho (Davis, The Recent mammals of Idaho, p. 290, Apr. 5, 1939), and through western Montana to northwestern Wyoming.

Peromyscus maniculatus serratus Davis*

1939. *Peromyscus maniculatus serratus* Davis, The Recent mammals of Idaho, p. 290, Apr. 15, 1939.

Type Locality.—Mill Creek, 14 miles west of Challia, Custer County, Idaho. Altitude, 8,370 feet. *Range.*—Sawtooth and Salmon River Mountains in central Idaho; limits of range unknown (Davis, loc. cit.).

Peromyscus maniculatus hollisteri Osgood†*

1909. *Peromyscus maniculatus hollisteri* Osgood, North Amer. Fauna No. 28, p. 62, Apr. 17, 1909.

Type Locality.—Friday Harbor, San Juan Island, San Juan County, Wash. *Range.*—San Juan Islands, San Juan and Skagit Counties, in northern Puget Sound (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 330, Apr. 9, 1948).

Peromyscus maniculatus austerus (Baird)†*

1855. *Hesperomys austerus* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, 1854–1855, p. 336, April 1855.
1899. *Peromyscus akeleyi* Elliot, Field Columb. Mus. Publ. 30, Zool. Ser., vol. 1, p. 226, Feb. 2, 1899. (Johnson's ranch, Elwha River, Olympic Mountains, Clallam County, Wash.)
1909. *Peromyscus maniculatus austerus* Osgood, North Amer. Fauna No. 28, p. 63, Apr. 17, 1909.

Type Locality.—Old Fort Steilacoom, Pierce County, Wash. *Range.*—West side of Cascade Range in southwestern British Columbia from Loughborough Inlet (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 137, Jan. 24, 1947) southward along coast region of Puget Sound and thence south in lowlands to Columbia River, Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 331, Apr. 9, 1948).

Peromyscus maniculatus rubidus Osgood†*

1901. *Peromyscus oreas rubidus* Osgood, Proc. Biol. Soc. Washington, vol. 14, p. 193, Dec. 12, 1901.
1903. *Peromyscus perimekurus* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 156, May 7, 1903. (Goldbeach, Curry County, Oregon.)
1909. *Peromyscus maniculatus rubidus* Osgood, North Amer. Fauna No. 28, p. 65, Apr. 17, 1909.

Type Locality.—Mendocino City, Mendocino County, Calif. *Range.*—From Puget Sound, Wahkiakum County, Wash. (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 331, Apr. 9, 1948), southward through coast region of Oregon, east, except in upper Rogue River Valley, to west slope of Cascades (V. Bailey, North Amer. Fauna, No. 55 (June), p. 182, Aug. 29, 1936) and narrow humid northwest coast belt of California to Golden Gate, Marin County; also locally in redwood belt south of San Francisco Bay from Woodside, San

Mateo County, south as far as Sur, Monterey County; but these southward populations are intermediate in characters toward *gambelii* (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 173, Sept. 26, 1933).

Peromyscus maniculatus gambelii (Baird)†*

1858. *Hesperomys gambelii* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 464, July 14, 1858.

1893. *Sitomys americanus thurberi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 185, Aug. 18, 1893. (Sierra San Pedro Mártir, Baja California, México.)

1896. *Peromyscus texanus medius* Mearns†, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 4, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 446, May 23, 1896. Nachoguero Valley, Baja California, México.)

1909. *Peromyscus maniculatus gambeli* Osgood, North Amer. Fauna No. 28, p. 67, Apr. 17, 1909.

Type Locality.—Monterey, Monterey County, Calif. *Range.*—Columbian Plateau of eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 331, Apr. 9, 1948), thence south through most of Oregon east of Cascades (V. Bailey, North Amer. Fauna No. 55 (June), p. 181, Aug. 29, 1936) into northwestern Nevada as far south as Truckee River and eastward into Black Rock Desert (Hall, Mammals of Nevada, p. 513, July 11, 1946) and over greater portion of California except narrow humid coast belt north of San Francisco Bay, southeastern deserts and their margining mountains (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 174, Sept. 26, 1933) and ranging into northwestern Baja California.

Peromyscus maniculatus streatori Nelson and Goldman†*

1931. *Peromyscus maniculatus streatori* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 21, No. 21, p. 531, Dec. 19, 1931.

Type Locality.—San Miguel Island, Santa Barbara County, Calif. *Range.*—San Miguel Island.

Peromyscus maniculatus sanctaerosae von Bloeker*

1940. *Peromyscus maniculatus sanctaerosae* von Bloeker, Bull. Southern California Acad. Sci., vol. 39, pt. 2, p. 173, Dec. 15, 1940.

Type Locality.—Elderberry Canyon, Santa Rosa Island, Santa Barbara County, Calif. *Range.*—Santa Rosa Island.

Peromyscus maniculatus santacruzae Nelson and Goldman†*

1931. *Peromyscus maniculatus santacruzae* Nelson and Goldman, Journ. Washington Acad, Sci., vol. 21, No. 21, p. 532, Dec. 19, 1931.

Type Locality.—Santa Cruz Island, Santa Barbara County, Calif. *Range.*—Santa Cruz Island.

Peromyscus maniculatus exterus Nelson and Goldman†*

1931. *Peromyscus maniculatus exterus* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 21, No. 21, p. 532, Dec. 19, 1931.

Type Locality.—San Nicolas Island, Ventura County, Calif. *Range.*—San Nicolas Island.

Peromyscus maniculatus anacapae von Bloeker

1942. *Peromyscus maniculatus anacapae* von Bloeker, Bull. Southern California Acad. Sci., vol. 40, pt. 3, p. 161, Jan. 31, 1942.

Type Locality.—Fish Camp, West Anacapa Island, Ventura County, Calif. *Range.*—East, Middle, and West Anacapa Islands, Ventura County.

Peromyscus maniculatus elusus Nelson and Goldman†*

1931. *Peromyscus maniculatus elusus* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 21, No. 21, p. 533, Dec. 19, 1931.

Type Locality.—Santa Barbara Island, Ventura County, Calif. *Range.*—Santa Barbara Island.

Peromyscus maniculatus catalinae Elliot*

1903. *Peromyscus catalinae* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 160, May 7, 1903.

1909. *Peromyscus maniculatus catalinae* Osgood, North Amer. Fauna No. 28, p. 97, Apr. 17, 1909.

Type Locality.—[Near Avalon], Santa Catalina Island, Los Angeles County, Calif. *Range.*—Santa Catalina Island.

Peromyscus maniculatus clementis Mearns†*

1896. *Peromyscus texanus clementis* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 4, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 446, May 23, 1896.)

1909. *Peromyscus maniculatus clementis* Osgood, North Amer. Fauna No. 28, p. 96, Apr. 17, 1909.

Type Locality.—San Clemente [more exactly, Pyramid Cove, southeast end], Los Angeles County, Calif. *Range.*—San Clemente Island.

Peromyscus maniculatus rufinus (Merriam)†*

1890. *Hesperomys leucopus rufinus* Merriam, North Amer. Fauna No. 3, p. 65, Sept. 11, 1890.

1909. *Peromyscus maniculatus rufinus* Osgood, North Amer. Fauna No. 28, p. 72, Apr. 17, 1909.

Type Locality.—San Francisco Mountain, Coconino County, Ariz. Altitude, 9,000 feet. *Range.*—Southern Rocky Mountain region, including greater part of central and western Colorado, except northwestern Counties (Warren, The Mammals of Colorado . . . , p. 199, 1942) ; in Utah, high plateaus south to Fish Lake Plateau, Uinta Mountains except at lower elevations, and southeastern Utah east of Colorado River and north of San Juan Valley (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 79, Jan. 15, 1951) ; scattered peaks and ranges in northern and eastern Arizona south to Chiricahua Mountains; and south in elevated part of northern and western New Mexico to Mogollon and Sacramento Mountains and east to Sierra Grande region (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 143, Mar. 1, 1932).

Peromyscus maniculatus gunnisoni Goldman†*

1937. *Peromyscus maniculatus gunnisoni* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 224, Dec. 28, 1937.

Type Locality.—Gunnison Island, Great Salt Lake, Box Elder County, Utah. Altitude, about 4,300 feet. *Range.*—Gunnison Island.

Peromyscus maniculatus inclarus Goldman†*

1939. *Peromyscus maniculatus inclarus* Goldman, Journ. Mamm., vol. 20, No. 3, p. 355, Aug. 14, 1939.

Type Locality.—Fremont Island, Great Salt Lake, Weber County, Utah. Altitude, about 4,250 feet. *Range.*—Fremont Island.

Peromyscus maniculatus osgoodi Mearns*

1890. *Hesperomys leucopus nebrascensis* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 285 (described on p. 287), Feb. 21, 1890. (Not *Hesperomys sonoriensis* var. *nebrascensis* Coues, 1877.)

1911. *Peromyscus maniculatus osgoodi* Mearns, Proc. Biol. Soc. Washington, vol. 24, p. 102, May 15, 1911. (Substitute for *nebrascensis* Mearns.)

Type Locality.—Calf Creek, Custer County, Mont. *Range.*—Plains and foothills along eastern base of Rocky Mountains from south-central Saskatchewan and southern Alberta (Soper, Journ. Mamm., vol. 27, No. 2, p. 145, May 14, 1946) southward through eastern parts of Montana, Wyoming and Colorado, and western parts of North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 73, Jan. 8, 1927) and South Dakota to northwestern corner of Oklahoma Panhandle (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 118, July 1939) and northwestern Texas; westward to northeastern Utah in lower elevations of Uinta Mountains and valleys north of Uinta Mountains, Uinta Basin, and area between Green and Colorado Rivers (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 79, Feb. 15, 1951).

Peromyscus maniculatus nebrascensis (Coues)*

1877. *Hesperomys sonoriensis* var. *nebrascensis* Coues, *in* Coues and Allen Monographs of North American Rodentia (U. S. Geol. and Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 79.

1905. *Peromyscus luteus* Osgood†, Proc. Biol. Soc. Washington, vol. 18, p. 77, Feb. 21, 1905. (Kennedy, Cherry County, Nebr.)

1911. *Peromyscus maniculatus nebrascensis* Mearns, Proc. Biol. Soc. Washington, vol. 24, p. 102, May 15, 1911.

Type Locality.—Deer Creek, Sheridan County, western Nebraska. *Range.*—Sandhill region of western Nebraska and adjoining parts of South Dakota, Wyoming, and Colorado; and extending south through western Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 78, September 1944) into western Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 119, July 1939).

Peromyscus maniculatus bairdii (Hoy and Kennicott)*

1857. *Mus bairdii* Hoy and Kennicott, *in* Kennicott, Agricultural Report U. S. Commissioner of Patents 1856, Washington, p. 92.

1884. *Hesperomys michiganensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1909. *Peromyscus maniculatus bairdi* Osgood, North Amer. Fauna No. 28, p. 79, Apr. 17, 1909.

Type Locality.—Bloomington, McLean County, Ill. *Range.*—Prairie region of upper Mississippi Valley from eastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 78, September 1944) and Missouri northward to southwestern Manitoba, Canada; eastward through Iowa, Minnesota, southern Wisconsin, southern Michigan (Burt, Mammals of Michigan, p. 204, 1946), Illinois, Indiana, and Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 144, Sept. 11, 1942) to northwestern West Virginia (Wilson, Journ. Mamm., vol. 26, No. 1, p. 95, Feb. 27, 1945), Ithaca, New York, and North Harrisburg, Dauphin County, Pa. (Hamilton, Journ. Mamm., vol. 31, No. 1, p. 100, Feb. 21, 1951), and Patuxent Wildlife Research Refuge, Prince Georges County, Md. (Stickel, Proc. Biol. Soc. Washington, vol. 64, pp. 25–26, Apr. 13, 1951).

Peromyscus maniculatus ozarkiarum Black*

1935. *Peromyscus maniculatus ozarkiarum* Black, Journ. Mamm., vol. 16, No. 2, p. 144, May 15, 1935.

Type Locality.—Three miles south of Winslow, Washington County, Ark. *Range.*—In Arkansas, known from Winslow south to Crawford–Washington County line, from Huntsville in Madison County, and from Gravette in Benton County; westward into eastern Oklahoma, except extreme southeastern corner (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 119, July 1939). Probably ranges throughout most or all of Arkansas and southern Missouri Ozarks.

Peromyscus maniculatus pallescens J. A. Allen*

1896. *Peromyscus michiganensis pallescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 238, Nov. 21, 1896.

1909. *Peromyscus maniculatus pallescens* Osgood, North Amer. Fauna No. 28, p. 83, Apr. 17, 1909.

Type Locality.—San Antonio, Bexar County, Tex. *Range.*—Central Texas, from vicinity of northern boundary at Gainesville south to region immediately west of Corpus Christi Bay. Zonal range, Lower Sonoran.

Peromyscus maniculatus blandus Osgood†*

1904. *Peromyscus sonoriensis blandus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 56, Mar. 21, 1904.

1909. *Peromyscus maniculatus blandus* Osgood, North Amer. Fauna No. 28, p. 84, Apr. 17, 1909.

Type Locality.—Escalón, Chihuahua, México. *Range.*—Lower Sonoran Zone of western Texas from Pecos Valley westward; north along Pecos and Rio Grande Valleys of southern New Mexico to about lat. 34° N., and westward through southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 147, Mar. 1, 1932) to southeastern Arizona (Cahalane, Journ. Mamm., vol. 20, No. 4, p. 433, Nov. 14, 1939); and south in México east of Sierra Madre in Chihuahua, southern Coahuila, southwestern Nuevo León, western Tamaulipas, northwestern San Luis Potosí, Durango, and Zacatecas.

Peromyscus maniculatus fulvus Osgood†*

1904. *Peromyscus sonoriensis fulvus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 57, Mar. 21, 1904.

1909. *Peromyscus maniculatus fulvus* Osgood, North Amer. Fauna No. 28, p. 86, Apr. 17, 1909.

Type Locality.—City of Oaxaca, Oaxaca, México. *Range.*—Southeastern Mexico, in parts of Oaxaca, Puebla, Veracruz, Tlaxcala, México and Hidalgo, extending from city of Oaxaca north to vicinity of Pachuca, Hidalgo. Zonal range, Lower Sonoran.

Peromyscus maniculatus labecula Elliot*

1903. *Peromyscus labecula* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 143, Mar. 20, 1903.

1909. *Peromyscus maniculatus labecula* Osgood, North Amer. Fauna No. 28, p. 87, Apr 17, 1909.

Type Locality.—Ocotlán, Jalisco, México. *Range.*—From Nayarit (Tepic) south through Jalisco to Michoacán (Pátzcuaro), east through Zacatecas (Valparaiso Mountains) to Nuevo León (Cerro Potosí; Koestner, Journ. Mamm., vol. 25, No. 3, p. 286, Nov. 8, 1944), and south through Guanajuato, Hidalgo, Distrito Federal (Hooper, Journ. Mamm., vol. 28, No. 1, p. 50, Feb. 17, 1947), and Morelos to Puebla (Davis, Journ. Mamm., vol. 25, No. 4, p. 395, Dec. 12, 1944).

Peromyscus maniculatus sonoriensis (Le Conte)†*

1853. *Hesperomys sonoriensis* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 413.

1884. *Hesperomys leucopus sonoriensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)

1890. *Hesperomys leucopus deserticolus* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 285 (described on p. 287), Feb. 21, 1890. (Mohave Desert, San Bernardino County, Calif.)

1894. *Sitomys insolatus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 256, October 1894. (Oro Grande, Mohave Desert, San Bernardino County, Calif.)

1903. *Peromyscus oresterus* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 159, May 7, 1903. (Vallecitos, Sierra San Pedro Mártir, Baja California, México.)

1909. *Peromyscus maniculatus sonoriensis* Osgood, North Amer. Fauna No. 28, p. 89, Apr. 17, 1909.

Type Locality.—Santa Cruz, Sonora, México. *Range.*—Narrow strip along northern border of Sonora, México, east as far as Sierra de los Patagones (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 58, Feb. 15, 1938); southern, western, and northern Arizona; northeastern Baja California east of Sierra San Pedro Mártir; Colorado and Mohave Deserts, and adjacent mountain ranges to westward, north through Inyo region along eastern boundary of California to Lassen County; westward from valley of Colorado River to western slopes of inner Coast Ranges in western San Diego County, to and including San Jacinto Mountains, most of San Bernardino Mountain area; northwest across Tehachapi country to Mount Pinos, Ventura County, over into southern rim of San Joaquin Valley as far as Carrizo Plain, in western Kern County; and north over high southern Sierra Nevada (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 174, Sept. 26, 1933); Nevada, except northwestern part (Hall, Mammals of Nevada, p. 515, July 1, 1946); Great Basin portion of southern Idaho (Davis, The Recent mammals of Idaho, p. 292, Apr. 5, 1936); western Utah, canyon lands between high plateaus and Green and Colorado Rivers and as far north as San Juan Valley east of Colorado River (Kelson, Univ. Utah. Biol. Ser., vol. 11, No. 3, p. 79, Feb. 15, 1951).

Peromyscus maniculatus coolidgei Thomas*

1898. *Peromyscus leucopus coolidgei* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 45, January 1898.

1909. *Peromyscus maniculatus coolidgei* Osgood, North Amer. Fauna No. 28, p. 94, Apr. 17, 1909.

Type Locality.—Santa Anita, cape region of Baja California, México. *Range.*—Greater part of Peninsula of Baja California from vicinity of southern base of Sierra San Pedro Mártir southward to Cape San Lucas.

Peromyscus maniculatus assimilis Nelson and Goldman†*

1931. *Peromyscus maniculatus assimilis* Nelson and Goldman, Journ. Mamm., vol. 12, No. 3, p. 305, Aug. 24, 1931.

Type Locality.—Coronados Island, off west coast of northern Baja California, México. *Range.*—Coronados Island.

Peromyscus maniculatus dubius J. A. Allen*

1898. *Peromyscus dubius* J. A. Allen, Bull. Amer. Mus. Nat. Hist, vol 10, p. 157, Apr. 12, 1898.

1909. *Peromyscus maniculatus dubius* Osgood, North Amer. Fauna No. 28, p. 98, Apr. 17, 1909.

Type Locality.—Todos Santos Island off west coast of northern Baja California, México. *Range.*—Todos Santos Island.

Peromyscus maniculatus exiguus J. A. Allen*

1898. *Peromyscus exiguus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 157, Apr. 12, 1898. (For status see Nelson and Goldman, Journ. Mamm., vol. 13, No. 4, pp. 370–371, Nov. 2, 1932.)

1931. *Peromyscus maniculatus martinensis* Nelson and Goldman†, Journ. Washington Acad. Sci., vol. 21, No. 21, p. 534, Dec. 19, 1931. (San Martín Island, Baja California, México.)

Type Locality.—San Martín Island off west coast of northern Baja California, México. *Range.*—San Martín Island.

Peromyscus maniculatus geronimensis J. A. Allen*

1898. *Peromyscus geronimensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 156, Apr. 12, 1898.

1909. *Peromyscus maniculatus geronimensis* Osgood, North Amer. Fauna No. 28, p. 99, Apr. 17, 1909.

Type Locality.—San Gerónimo Island, off west coast of northern Baja California, México. *Range.*—San Gerónimo Island.

Peromyscus maniculatus dorsalis Nelson and Goldman†*

1931. *Peromyscus maniculatus dorsalis* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 21, No. 21, p. 535, Dec. 19, 1931.

Type Locality.—Natividad Island, off west coast of northern Baja California, México. *Range.*—Natividad Island.

Peromyscus maniculatus cineritius J. A. Allen

1898. *Peromyscus cineritius* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 155, Apr. 12, 1898.

1909. *Peromyscus maniculatus cineritius* Osgood, North Amer. Fauna No. 28, p. 100, Apr. 17, 1909.

Type Locality.—San Roque Island, Baja California, México. *Range.*—San Roque Island.

Peromyscus maniculatus magdalenae Osgood†*

1909. *Peromyscus maniculatus magdalenae* Osgood, North Amer. Fauna No. 28, p. 101, Apr. 17, 1909.

Type Locality.—Magdalena Island, off west coast of southern Baja California, México. *Range.*—Magdalena Island and a narrow strip of adjacent mainland of Baja California.

Peromyscus maniculatus margaritae Osgood†*

1909. *Peromyscus maniculatus margaritae* Osgood, North Amer. Fauna No. 28, p. 95, Apr. 17, 1909.

Type Locality.—Margarita Island, off west coast of southern Baja California, México. *Range.*—Margarita Island.

Peromyscus maniculatus hueyi Nelson and Goldman*

1932. *Peromyscus maniculatus hueyi* Nelson and Goldman, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 7, p. 51, Apr. 15, 1932.

Type Locality.—Small island in Gonzaga Bay, lat. 29° 50′ N., long. 114° 20′ E., east coast of Baja California, México. *Range.*—Known from type locality only.

Peromyscus sejugis Burt

1932. *Peromyscus sejugis* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 171, Oct. 31, 1932.

Type Locality.—Santa Cruz Island, lat. 25° 17′ N., long. 110° 43′ W., Gulf of California, Baja California, México. *Range.*—Santa Cruz and San Diego Islands, Gulf of California.

Peromyscus slevini Mailliard

1924. *Peromyscus slevini* Mailliard, Proc. California Acad. Sci., ser. 4, vol. 12, p. 1221, July 22, 1924. (For subgeneric position see Burt, Journ. Mamm., vol. 15, No. 2, pp. 159–160, May 15, 1934.)

Type Locality.—Santa Catalina Island, 17 miles northeast of Punta San Marcial, Gulf of California, Baja California, México. *Range.*—Santa Catalina Island.

Peromyscus sitkensis sitkensis Merriam†*

1897. *Peromyscus sitkensis sitkensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 223, July 15, 1897.

Type Locality.—Sitka, Alaska. *Range.*—Baranof and Chichagof Islands, Alaska.

Peromyscus sitkensis oceanicus Cowan*

1935. *Peromyscus sitkensis oceanicus* Cowan, Univ. California Publ. Zool., vol. 40, No. 13, p. 432, Nov. 14, 1935.

Type Locality.—Forrester Island, Alaska. *Range.*—Restricted to Forrester Island.

Peromyscus sitkensis prevostensis Osgood†*

1901. *Peromyscus prevostensis* Osgood, North Amer. Fauna No. 21, p. 29, Sept. 26, 1901.

1909. *Peromyscus sitkensis prevostensis* Osgood, North Amer. Fauna No. 28, p. 102, Apr. 17, 1909.

Type Locality.—Prevost Island, Queen Charlotte Group, British Columbia, Canada. *Range.*—Prevost Island.

Peromyscus polionotus polionotus (Wagner)*

1843. *Mus polionotus* Wagner, Arch. Naturg., Jahrg. 9, vol. 2, p. 52, 1843.

1893. *Sitomys niveiventris subgriseus* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 341, Dec. 22, 1893. (Gainesville, Alachua County, Fla.)

1898. *Peromyscus subgriseus arenarius* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 202, March 1898. (Hursman Lake, Scriven County, Ga. Not *arenarius* Mearns, 1896.)

1898. *Peromyscus subgriseus baliolus* Bangs, Science, new ser., vol. 8, p. 215, Aug. 19, 1898. (Substitute for *arenarius* Bangs.)

1907. *Peromyscus polionotus Osgood*, Proc. Biol. Soc. Washington, vol. 20, p. 49, Apr. 18, 1907.

Type Locality.—Georgia. *Range.*—Extreme northern Florida (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 116, 1937) northeast to Abbeville, South Carolina (Coleman, Journ. Mamm., vol. 20, No. 4, p. 505, Nov. 14, 1939), and west through Georgia into greater part of eastern Alabama (A. H. Howell, Journ. Mamm., vol. 1, No. 5 (November), p. 237, Dec. 4, 1920).

Peromyscus polionotus phasma Bangs*

1898. *Peromyscus phasma* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 199, March 1898.

1909. *Peromyscus polionotus phasma* Osgood, North Amer. Fauna No. 28, p. 107, Apr. 17, 1909.

Type Locality.—Point Romo, Anastasia Island, St. Johns County, Fla. *Range.*—Anastasia Island.

Peromyscus polionotus decoloratus A. H. Howell†*

1939. *Peromyscus polionotus decoloratus* A. H. Howell, Journ. Mamm., vol. 20, No. 3, p. 363, Aug. 14, 1939.

Type Locality.—Ponce Park, near Mosquito Inlet, Volusia County, Fla. *Range.*—Probably occurs from Mosquito Inlet north to Matanzas Inlet, Fla.

Peromyscus polionotus niveiventris (Chapman)*

1889. *Hesperomys niveiventris* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 117, June 7, 1889.

1909. *Peromyscus polionotus niveiventris* Osgood, North Amer. Fauna No. 28, p. 105, Apr. 17, 1909.

Type Locality.—On East Peninsula, opposite Micco, Brevard County, Fla. *Range.*—Sandy beach region of eastern coast of Florida from Hillsboro Inlet north to Mosquito Inlet (A. H. Howell, Journ. Mamm., vol. 1, No. 5 (November), p. 237, Dec. 4, 1920).

Peromyscus polionotus rhoadsi Bangs*

1898. *Peromyscus subgriseus rhoadsi* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 201, March 1898.

1909. *Peromyscus polionotus rhoadsi* Osgood, North Amer. Fauna No. 28, p. 107, Apr. 17, 1909.

Type Locality.—Anclote River, Hillsborough County, Fla. *Range.*—Western side of Florida in region north of Tampa Bay (A. H. Howell, Journ. Mamm., vol. 1, No. 5 (November), p. 237, Dec. 4, 1920).

Peromyscus polionotus peninsularis A. H. Howell*

1939. *Peromyscus polionotus peninsularis* A. H. Howell, Journ. Mamm., vol. 20, No. 3, p. 364, Aug. 14, 1939.

Type Locality.—Saint Andrews Point Peninsula, Bay County, Fla. *Range.*—Known only from type locality and Cape San Blas, Fla.

Peromyscus polionotus albifrons Osgood*

1909. *Peromyscus polionotus albifrons* Osgood, North Amer. Fauna No. 28, p. 108, Apr. 17, 1909.

Type Locality.—Whitfield, Walton County, Fla. *Range.*—Region around Choctawhatchee Bay, extreme western Florida, and ocean beaches in southeastern Alabama east of Mobile Bay (A. H. Howell, Journ. Mamm., vol. 1, No. 5 (November), p. 237, Dec. 4, 1920).

Peromyscus polionotus leucocephalus A. H. Howell†*

1920. *Peromyscus leucocephalus* A. H. Howell, Journ. Mamm., vol. 1, No. 5 (November), p. 239, Dec. 4, 1920.

1926. *P[eromyscus] p[olionotus] leucocephalus* Sumner, Journ. Mamm., vol. 7, No. 3, p. 155, Aug. 9, 1926.

Type Locality.—Santa Rosa Island (opposite Camp Walton), Santa Rosa County, Fla. *Range.*—Santa Rosa Island.

Peromyscus melanotis J. A. Allen and Chapman*

1897. *Peromyscus melanotis* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 203, June 16, 1897.

1903. *Peromyscus cecilii* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 486, May 1903. (South slope of Volcán de Orizaba, Puebla, México.)

1904. *Peromyscus melanotis zamelas* Osgood†, Proc. Biol. Soc. Washington, vol. 17, p. 59, Mar. 21, 1904. (Colonia García, Chihuahua, México.)

Type Locality.—Las Vigas, Veracruz, México. *Range.*—Higher slopes of principal mountains of México north of States of Guerrero and Oaxaca. Extending along Cordillera of Veracruz; westward from Volcán de Popocatépetl to El Nevado de Colima; and northward into Sierra Madre of Durango and Chihuahua. Zonal range, Transition and Canadian; vertical range, from 7,000 to 12,000 feet altitude.

leucopus—group

Peromyscus leucopus leucopus (Rafinesque)*

1818. *Musculus leucopus* Rafinesque, Amer. Monthly Mag., vol. 3, p. 446, October 1818.

1884. *Hesperomys leucopus leucopus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)

1895. *Peromyscus leucopus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 15, p. 192, February 1895.

Type Locality.—Pine barrens of Kentucky. *Range.*—Western Kentucky and western Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 279, Feb. 14,

1939) west through Arkansas to southeastern Oklahoma (Blair, Amer. Mid. Nat., vol. 22, No. 1, p. 120, July 1939), south through western and central Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 243, Nov. 22, 1943) and east through northern Mississippi, Alabama, Georgia, and around southern end of Allegheny Mountains to eastern Virginia.

Peromyscus leucopus noveboracensis (Fischer)*

1829. [*Mus. sylvaticus*] δ *noveboracensis* Fischer, Synopsis Mammalium, p. 318.

1897. *Peromyscus leucopus noveboracensis* Miller, Proc. Boston Soc. Nat. Hist., vol. 28, p. 22, Apr. 30, 1897.

1901. *Peromyscus leucopus minnesotae* Mearns†, Proc. Biol. Soc. Washington, vol. 14, p. 154, Aug. 9, 1901. (Fort Snelling, Hennepin County, Minn.)

Type Locality.—New York. *Range.*—Upper Austral and Transition Zones of eastern United States and southern Canada. From eastern and southern Ontario and southern border of Quebec along Ottawa River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 142, Jan. 24, 1947) eastward to Maine; south along Atlantic coast into Virginia, West Virginia and northern Kentucky; westward south of Great Lakes to eastern North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 77, Jan. 8, 1927), South Dakota, Nebraska, and Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 79, September 1944), northeastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 120, July 1939) and northwestern Arkansas (Black, Journ. Mamm., vol. 17, No. 1, p. 33, Feb. 17, 1936).

Peromyscus leucopus caudatus R. W. Smith*

1939. *Peromyscus leucopus caudatus* R. W. Smith, Proc. Biol. Soc. Washington, vol. 52, p. 157, Oct. 11, 1939.

Type Locality.—Wolfville, Kings County, Nova Scotia, Canada. *Range.*—Western Nova Scotia.

Peromyscus leucopus ammodytes Bangs*

1905. *Peromyscus leucopus ammodytes* Bangs, Proc. New England Zool. Club, vol. 4, p. 14, Feb. 28, 1905.

Type Locality.—Monomoy Island, Barnstable County, Mass. *Range.*—Monomoy Island (see also P. F. Allan, Journ. Mamm., vol. 20, No. 1, p. 98, Feb. 15, 1939).

Peromyscus leucopus fusus Bangs*

1905. *Peromyscus leucopus fusus* Bangs, Proc. New England Zool. Club, vol. 4, p. 13, Feb. 28, 1905.

Type Locality.—West Tisbury, Martha's Vineyard, Dukes County, Mass. *Range.*—Island of Martha's Vineyard.

Peromyscus leucopus aridulus Osgood†*

1909. *Peromyscus leucopus aridulus* Osgood, North Amer. Fauna No. 28, p. 122, Apr. 17, 1909.

Type Locality.—Fort Custer, Big Horn County, Mont. *Range.*—Southwestern Saskatchewan and southeastern Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 142, Jan. 24, 1947) south through eastern Montana, Wyoming, and adjoining western parts of North Dakota (V. Bailey, North Amer.

Fauna No. 49 (1926), p. 79, Jan. 8, 1927), South Dakota and Nebraska to eastern Colorado and western Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 79, September 1944).

Peromyscus leucopus ochraceus Osgood†*

1909. *Peromyscus leucopus ochraceus* Osgood, North Amer. Fauna No. 28, p. 124, Apr. 17, 1909.

Type Locality.—Winslow, Navajo County, Ariz. *Range.*—Baker Butte, Mogollon Mountains, Fort Verde, and Winslow, Ariz.

Peromyscus leucopus arizonae (J. A. Allen)*

1894. *Sitomys americanus arizonae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6 p. 321, Nov. 7, 1894.

1909. *Peromyscus leucopus arizonae* Osgood, North Amer. Fauna No. 28, p. 126, Apr. 17, 1909.

Type Locality.—Fairbank, Cochise County, Ariz. *Range.*—Southwestern New Mexico, southeastern Arizona; and northeastern Sonora as far west as Sáric (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 58, Feb. 15, 1938).

Peromyscus leucopus tornillo Mearns†*

1896. *Peromyscus tornillo* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 3, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 445, May 23, 1896.)

1903. *Peromyscus texanus flaccidus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 599, Nov. 14, 1903. (Río Sestin, northwestern Durango, México.)

1909. *Peromyscus leucopus tornillo* Osgood, North Amer. Fauna No. 28, p. 125, Apr. 17, 1909.

Type Locality.—Río Grande, about 6 miles above El Paso, El Paso County, Tex. *Range.*—Upper part of Lower Sonoran Zone of western Texas and eastern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 148, Mar. 1, 1932); north to southeastern Colorado and southwestern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 79, September 1944); and south through central Chihuahua to northern Durango, México.

Peromyscus leucopus texanus (Woodhouse)†*

1853. *Hesperomys texana* Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 242.

1891. *Vesperimus mearnsii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 300, June 30, 1891. (Brownsville, Cameron County, Tex.)

1896. *Peromyscus canus* Mearns†, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 3, Mar. 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 18, p. 445, May 23, 1896. Fort Clark, Kinney County, Tex.)

1909. *Peromyscus leucopus texanus* Osgood, North Amer. Fauna No. 28, p. 127, Apr. 17, 1909.

Type Locality.—Probably vicinity of Mason, Mason County, Tex. *Range.*—Eastern México and central Texas, west to vicinity of mouth of Pecos River (see Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 32, Aug. 7, 1942) and east to west side of Galveston Bay; north into western Oklahoma

(Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 121, July 1939), and south-central Kansas (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 179, Aug. 25, 1952); and south into Nuevo León and Tamaulipas, México.

Peromyscus leucopus brevicaudus Davis*

1939. *Peromyscus leucopus brevicaudus* Davis, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 2, p. 1, Feb. 1, 1939.

Type Locality.—Huntsville, Walker County, Tex. *Range.*—Eastern Texas from Brazos River (Peterson, Journ. Mamm., vol. 27, No. 2, p. 166, May 14, 1946) eastward at least to west-central Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 244, Nov. 22, 1943).

Peromyscus leucopus mesomelas Osgood†*

1904. *Peromyscus texanus mesomelas* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 57, Mar. 21, 1904.

1909. *Peromyscus leucopus mesomelas* Osgood, North Amer. Fauna No. 28, p. 132, Apr. 17, 1909.

Type Locality.—Orizaba, Veracruz, México. *Range.*—Humid tropics of central Veracruz and northern Puebla, México.

Peromyscus leucopus incensus Goldman†*

1942. *Peromyscus leucopus incensus* Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 157, Oct. 17, 1942.

Type Locality.—Metlatoyuca, Puebla, México. Altitude, 800 feet. *Range.*—Tropical lowlands, bordering steep eastern slope of interior plateau, from southern Tamaulipas (Altamira) and eastern San Luis Potosí south through eastern Puebla to southern Veracruz and northeastern Oaxaca (Guichicovi).

Peromyscus leucopus affinis (J. A. Allen)†*

1891. *Hesperomys (Vesperimus) affinis* J. A. Allen, Proc. U. S. Nat. Mus., vol. 14, p. 195, July 24, 1891.

1898. *Peromyscus musculoides* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 124, Apr. 30, 1898. (Cuicatlán, Oaxaca, México.)

1909. *Peromyscus leucopus affinis* Osgood, North Amer. Fauna No. 28, p. 133, Apr. 17, 1909.

Type Locality.—Barrio, Oaxaca, México. (See J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 7, Feb. 23, 1897.) *Range.*—Arid tropical parts of southern and central Oaxaca, México.

Peromyscus leucopus castaneus Osgood†*

1904. *Peromyscus texanus castaneus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 58, Mar. 21, 1904.

1909. *Peromyscus leucopus castaneus* Osgood, North Amer. Fauna No. 28, p. 133, Apr. 17, 1909.

Type Locality.—Yohaltún, Campeche, México. *Range.*—Recorded also at Santa Rosa, southeastern Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 235, Sept. 28, 1950).

Peromyscus leucopus cozumelae Merriam†*

1901. *Peromyscus cozumelae* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 103, July 19, 1901.

1909. *Peromyscus leucopus cozumelae* Osgood, North Amer. Fauna No. 28, p. 135, Apr. 17, 1909.

Type Locality.—Cozumel Island, Quintana Roo, México. *Range.*—Cozumel Island.

Peromyscus gossypinus gossypinus (Le Conte)†*

1853. *Hes[peromys] gossypinus* Le Conte, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 411.

1884. *Hesperomys leucopus gossypinus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1896. *Peromyscus gossypinus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 58, p. 189, Apr. 21, 1896.

1896. *Peromyscus gossypinus nigriculus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 124, Nov. 5, 1896. (Burbridge, Plaquemines Parish, La.)

Type Locality.—Georgia; probably the Le Conte Plantation near Riceboro, Liberty County. (See Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 123, Nov. 5, 1896.) *Range.*—Lowlands of southeastern United States from Dismal Swamp, Va., to central Florida and west to eastern Louisiana. Zonal range, Lower Austral.

Peromyscus gossypinus megacephalus (Rhoads)*

1894. *Sitomys megacephalus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 254, October 1894.

1896. *Peromyscus megacephalus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 48, p. 191, Apr. 21, 1896.

1896. *Peromyscus gossypinus mississippiensis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 48, p. 189, Apr. 21, 1896. (Samburg, Reelfoot Lake, Obion County, Tenn.)

1909. *Peromyscus gossypinus megacephalus* Osgood, North Amer. Fauna No. 28, p. 138, Apr. 17, 1909.

Type Locality.—Woodville, Jackson County, Ala. *Range.*—Northern Alabama and western Tennessee, west through Arkansas to eastern Oklahoma, and thence south through eastern Texas and western Louisiana.

Peromyscus gossypinus palmarius Bangs*

1896. *Peromyscus gossypinus palmarius* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 124, Nov. 5, 1896.

Type Locality.—Oak Lodge, East Peninsula, opposite Micco, Brevard County, Fla. *Range.*—Peninsular Florida.

Peromyscus gossypinus telmaphilus Schwartz*

1952. *Peromyscus gossypinus telmaphilus* Schwartz, Journ. Mamm., vol. 33, No. 3, p. 384, Aug. 19, 1952.

Type Locality.—Royal Palm Hammock, Collier County, Fla. *Range.*—Southwest portion of Florida Peninsula, at least from Naples, Collier County, on the north, south and east to vicinity of Monroe Station, Collier County, but not including 10,000 Island region.

Peromyscus gossypinus allapaticola Schwartz*

1952. *Peromyscus gossypinus allapaticola* Schwartz, Journ. Mamm., vol. 33, No. 3, p. 383, Aug. 19, 1952.

Type Locality.—Twelve miles northeast of Rock Harbor, Key Largo, Monroe County, Fla. *Range.*—Known from Key Largo only.

Peromyscus gossypinus restrictus A. H. Howell†*

1939. *Peromyscus gossypinus restrictus* A. H. Howell, Journ. Mamm., vol. 20, No. 3, p. 364, Aug. 14, 1939.

Type Locality.—Chadwick Beach, near Englewood, Sarasota County, Fla. *Range.*—Known from type locality only.

Peromyscus gossypinus anastasae Bangs*

1898. *Peromyscus anastasae* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 195, March 1898.

1898. *Peromyscus insulanus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 196, March 1898. (Cumberland Island, Camden County, Ga.)

1909. *Peromyscus gossypinus anastasae* Osgood, North Amer. Fauna No. 28, p. 141, Apr. 17, 1909.

Type Locality.—Point Romo, Anastasia Island, St. Johns County, Fla. *Range.*—Sandy islands off eastern coast of Georgia and Florida; possibly also parts of mainland.

boylii—group

Peromyscus boylii boylii (Baird)†*

1855. *Hesperomys boylii* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 335, April 1855.

1893. *Sitomys robustus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 335, Dec. 16, 1893. (Lakeport, Lake County, Calif.)

1896. *Peromyscus boylii* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 2, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 139, Dec. 21, 1896.)

Type Locality.—Middle Fork of American River, near present town of Auburn, El Dorado County, Calif. *Range.*—Chiefly western flank of Sierra Nevada, from Kings River Canyon and Dunlap, Fresno County, north to vicinity of Mount Shasta, thence west to Trinity Mountain region and south along inner Coast Ranges nearly to San Francisco Bay, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 176, Sept. 26, 1933); in Nevada known only from eastern shore of Lake Tahoe, Washoe County (Hall, Mammals of Nevada, p. 519, July 1, 1946).

Peromyscus boylii utahensis Durrant*

1946. *Peromyscus boylii utahensis* Durrant, Proc. Biol. Soc. Washington, vol. 59, p. 167, Dec. 23, 1946.

Type Locality.—Half mile above lower power station, Millcreek Canyon, Salt Lake County, Utah. Altitude, 5,800 feet. *Range.*—Utah eastward to Colorado and Green Rivers and westward to western borders of area formerly occupied by Pleistocene Lake Bonneville; limits unknown outside of Utah.

Peromyscus boylii rowleyi (J. A. Allen)*

1893. *Sitomys rowleyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 76, Apr. 28, 1893.

1893. *Sitomys major* Rhoads, Amer. Nat., vol. 27, p. 831, September 1893. (Squirrel Inn, San Bernardino County, Calif.)

1893. *Sitomys rowleyi pinalis* Miller, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 331, Dec. 16, 1893. (Granite Gap, Grant County, N. Mex.)

1896. *P[eromyscus] b[oylii] rowleyi* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 3, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 139, Dec. 21, 1896.)

1896. *Peromyscus boylii penicillatus* Mearns†, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 3, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 139, Dec. 21, 1896. Franklin Mountains, near El Paso, El Paso County, Tex.)

1903. *Peromyscus gaurus* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 157, May 7, 1903. (San Antonio, Sierra San Pedro Mártir, Baja California, México.)

1904. *Peromyscus parasiticus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 244, Jan. 7, 1904. (Lone Pine, Inyo County, Calif.)

1904. *Peromyscus metallicola* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 245, Jan. 7, 1904. (Providencia Mines, Chihuahua, México.)

Type Locality.—Noland Ranch, on north side of San Juan River, one and one half miles above present "Four Corners," San Juan County, Utah (see Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 2, Apr. 10, 1931). *Range.*—Mountains of northern Baja California; mountains of southern half of California from Mexican border (east to Mountain Spring, extreme eastern San Diego County) through Coast Ranges to and through Monterey County (as far as Seaside); east around southern end of San Joaquin Valley (through Tehachapi Mountain region) to southern Sierra Nevada; north on west flank of Sierra Nevada at least to Kaweah River, Tulare County, and along east side of Onion Valley, near Independence, Inyo County; also on certain mountain ranges southeast of Owens Valley; northern portion of Panamint Mountains, Inyo County; and Providence Mountains, eastern San Bernardino County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 176, Sept. 24, 1933); Lincoln and Clark Counties in southern Nevada (Hall, Mammals of Nevada, p. 519, July 1, 1946); southeastern Utah, east of Colorado and Green Rivers (Durrant, Proc. Biol. Soc. Washington, vol. 59, p. 167, Dec. 23, 1946); southern Colorado, Arizona, New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 154, Mar. 1, 1932), western Texas (see Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, pp. 32–33, Aug. 7, 1942) and south in México chiefly on eastern slopes of Sierra Madre to central Zacatecas and northwestern San Luis Potosí; and west in northeastern Sonora as far as Sáric (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 59, Feb. 15. 1938).

Peromyscus boylii glasselli Burt

1932. *Peromyscus boylii glasselli* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 171, Oct. 31, 1932.

Type Locality.—San Pedro Nolasco Island, lat. 27°58′ N., long. 111°24′ W., Gulf of California, Sonora, México. *Range.*—San Pedro Nolasco Island.

Peromyscus boylii attwateri J. A. Allen*

1895. *Peromyscus attwateri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 330, Nov. 8, 1895.

1896. *Peromyscus bellus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 137, Dec. 28, 1896. (Stilwell, Adair County, Okla.)

1905. *Peromyscus boylei laceyi* V. Bailey†, North Amer. Fauna No. 25, p. 99, Oct. 24, 1905. (Turtle Creek, Kerr County, Tex.)

1906. *Peromyscus boylei attwateri* V. Bailey, Proc. Biol. Soc. Washington, vol. 19, p. 57, May 1, 1906.

Type Locality.—Turtle Creek, Kerr County, Tex. *Range.*—South-central and parts of western Texas; north to eastern Oklahoma, northwestern Arkansas, central Missouri, and southeastern Kansas. Chiefly confined to rocky cliffs in Upper Sonoran Zone.

Peromyscus boylii spicilegus J. A. Allen*

1897. *Peromyscus spicilegus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 50, Mar. 15, 1897.

1909. *Peromyscus boylei spicilegus* Osgood, North Amer. Fauna No. 28, p. 149, Apr. 17, 1909.

Type Locality.—Mineral San Sebastián, Mascota, Jalisco, México. *Range.*—Western slopes of Sierra Madre of México from southern Sonora south to southern Jalisco. Recorded also at Mojarachic, Chihuahua, México (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 298, Aug. 14, 1942).

Peromyscus boylii simulus Osgood†*

1904. *Peromyscus spicilegus simulus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 64, Mar. 21, 1904.

1909. *Peromyscus boylei simulus* Osgood, North Amer. Fauna No. 28, p. 151, Apr. 17, 1909.

Type Locality.—San Blas, Nayarit, México. *Range.*—Lowlands of west coast of México, in Sinaloa and Nayarit.

Peromyscus boylii madrensis Merriam†*

1898. *Peromyscus madrensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 16, Jan. 27, 1898.

1909. *Peromyscus boylei madrensis* Osgood, North Amer. Fauna No. 28, p. 152, Apr. 17, 1909.

Type Locality.—María Madre Island, Tres Marías Islands, Nayarit, México. *Range.*—Tres Marías Islands.

Peromyscus boylii evides Osgood†*

1904. *Peromyscus spicilegus evides* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 64, Mar. 21, 1904. (For status see Hoffmeister, Journ. Mamm., vol. 27, No. 3, p. 278, Aug. 14, 1946.)

1909. *Peromyscus boylei evides* Osgood, North Amer. Fauna No. 28, p. 152, Apr. 17, 1909.

Type Locality.—Juquila, Oaxaca, México. *Range.*—Western México at lower altitudes than *spicilegus;* known from localities in States of Guerrero, Oaxaca, and Michoacán.

Peromyscus boylii levipes Merriam†*

1898. *Peromyscus levipes* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 123, Apr. 30, 1898.

1903. *Peromyscus sagax* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 142, Mar. 20, 1903. (La Palma (not Pátzcuaro), Michoacán, México. Regarded as identical with *levipes* by Hoffmeister, Journ. Mamm., vol. 27, No. 3, p. 278, Aug. 14, 1946.)

1903. *Peromyscus beatae* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 485, May 1903. (Mount Orizaba, Veracruz, México. For status see Davis, Journ. Mamm., vol. 25, No. 4, p. 396, Dec. 12, 1944.)

1909. *Peromyscus boylei levipes* Osgood, North Amer. Fauna No. 28, p. 153, Apr. 17, 1909.

Type Locality.—Mount Malinche, Tlaxcala, México. Altitude, 8,400 feet. *Range.*—Eastern and southwestern México and western and central Guatemala, chiefly in mountainous regions from central Nuevo León south through San Luis Potosí, Hidalgo, Veracruz to southern Oaxaca; reappearing in highlands of Chiapas and western and central Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 41, Dec. 12, 1934).

Peromyscus boylii aztecus (Saussure) *

1860. *H[esperomys] aztecus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 105.

1909. *Peromyscus boylei aztecus* Osgood, North Amer. Fauna No. 28, p. 156, Apr. 17, 1909.

Type Locality.—Southern México. *Range.*—Lower Austral Zone (and possibly part of Humid Tropical Zone) in parts of Veracruz and Puebla, México.

Peromyscus boylii cordillerae Dickey

1928. *Peromyscus boylii cordillerae* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 2, Jan. 25, 1928.

Type Locality.—Mount Cacaguatique, San Miguel, El Salvador. Altitude, 3,500 feet. *Range.*—Known from type locality only.

Peromyscus boylii sacarensis Dickey

1928. *Peromyscus boylii sacarensis* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 3, Jan. 25, 1928.

Type Locality.—San José del Sacare (San José del Sacario of maps), Chalatenango, El Salvador. Altitude, 3,600 feet. *Range.*—Sonoran Zone, El Salvador and southern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 161, May 29, 1942).

Peromyscus perfulvus Osgood

1945. *Peromyscus perfulvus* Osgood, Journ. Mamm., vol. 26, No. 3, p. 299, Nov. 14, 1945.

Type Locality.—Ten kilometers west of Apatzingán, Michoacán, México. Altitude, 1,040 feet. *Range.*—Known only from type locality and vicinity of Tacámbaro, Michoacán.

Peromyscus oaxacensis Merriam†*

1898. *Peromyscus oaxacensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 122, Apr. 30, 1898.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,000 feet. *Range.*—High altitudes in southern México, chiefly in Oaxaca; reappearing in mountains of central Chiapas.

Peromyscus hylocetes Merriam†*

1898. *Peromyscus hylocetes* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 124, Apr. 30, 1898.

Type Locality.—Pátzcuaro, Michoacán, México. Altitude, 8,000 feet. *Range.*—Mountainous parts of Michoacán and southern Jalisco; east to mountains near Valley of México.

Peromyscus pectoralis pectoralis Osgood†*

1904. *Peromyscus attwateri pectoralis* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 59, Mar. 21, 1904.

1906. *Peromyscus pectoralis* V. Bailey, Proc. Biol. Soc. Washington, vol. 19, p. 57, May 1, 1906.

Type Locality.—Jalpan, Querétaro, México. *Range.*—Known from scattered localities in Sonoran Zone of eastern and central México, from central Nuevo León south to Querétaro, and thence west through southern San Luis Potosí and (probably) Guanajuato to eastern Jalisco and southern Zacatecas.

Peromycus pectoralis collinus Hooper*

1952. *Peromyscus pectoralis collinus* Hooper, Jour. Mamm., vol. 33, No. 3, p. 372, Aug. 19, 1952.

Type Locality.—San José, 12 miles northwest of San Carlos, Sierra San Carlos, Tamaulipas, México. Altitude, 2,000 feet. *Range.*—Foothills of Sierra San Carlos, Sierra de Tamaulipas, and Sierra Madre Oriental, in northeastern México. Known range from vicinity of Monterrey south to Jaumave in Sierra Madre and to vicinity of Acuña in Sierra de Tamaulipas; known vertical range from 1,300 feet at Villagran to 2,900 feet at La Vegonia mine.

Peromyscus pectoralis eremicoides Osgood†*

1904. *Peromyscus attwateri eremicoides* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 60, Mar. 21, 1904.

1909. *Peromyscus pectoralis eremicoides* Lyon and Osgood, U. S. Nat. Mus. Bull. 62, p. 128, Jan. 28, 1909.

Type Locality.—Mapimi, Durango, México. *Range.*—North-central México, chiefly in Durango, Coahuila, and Chihuahua; north to southern Arizona.

Peromyscus pectoralis laceianus V. Bailey†*

1906. *Peromyscus pectoralis laceianus* V. Bailey, Proc. Biol. Soc. Washington, vol. 19, p. 57, May 1, 1906.

Type Locality.—Lacey Ranch, near Kerrville, Kerr County, Tex. *Range.*—West central Texas, from vicinity of Austin to Big Bend of Rio Grande and Culberson County (Davis and Robertson, Journ. Mamm., vol. 25, No. 3, p. 269, Nov. 8, 1944).

Peromyscus truei truei (Shufeldt)†*

1885. *Hesperomys truei* Shufeldt, Proc. U. S. Nat. Mus., vol. 8, p. 407, Sept. 14, 1885.

1890. *Hesperomys megalotis* Merriam†, North Amer. Fauna No. 3, p. 63, Sept. 11, 1890. (Black Tank, Little Colorado Desert, Coconino County, Ariz.)

1894. *P[eromyscus] truei* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 14, p. 365, November 1894.

1904. *Peromyscus lasius* Elliot, Field Columb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 265, Mar. 7, 1904. (Hannopee Canyon, Panamint Mountains, Inyo County, Calif.)

Type Locality.—Fort Wingate, McKinley County, N. Mex. *Range.*—From California, east of crest of Sierra Nevada-Cascade Chain and Mohave Desert, across western and southern Nevada, southern and eastern Utah, northern, central, and southeastern Arizona, to southwestern Wyoming and western and southeastern Colorado, extreme northwestern Oklahoma, and to New Mexico, except in eastern parts; vertical range from 3,150 feet at Camp Verde, Ariz., to 11,000 feet in Charleston Mountains, Nev.; zonal range, Upper Sonoran, rarely entering Lower Sonoran or Transition (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 30, Nov. 12, 1951).

Peromyscus truei nevadensis Hall and Hoffmeister*

1940. *Peromyscus truei nevadensis* Hall and Hoffmeister, Univ. California Publ. Zool., vol. 42, No. 8, p. 401, Apr. 30, 1940.

Type Locality.—Half a mile west of Debbs Creek, Pilot Peak, Elko County, Nev. Altitude, 6,000 feet. *Range.*—Northeastern and east-central Nevada and western Utah, particularly slopes bordering Pleistocene Lake Bonneville. Known limits of occurrence: At north, Raft River Mountains, Box Elder County, Utah, and Pilot Peak, Elko County, Nev.; at west, eastern slopes of Ruby Mountains, Elko and White Pine Counties, Nev.; at south, Pine Valley, Utah, and northeastern Lincoln County, Nev.; at east, vicinity of Escalante, Garfield County, and Provo, Utah County, Utah; vertical range from near 5,000 feet near Draper to 7,500 feet near Lehman Cave; zonal range, Upper Sonoran; possibly enters Transition (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 41, Nov. 12, 1951).

Peromyscus truei preblei V. Bailey†*

1936. *Peromyscus truei preblei* V. Bailey, North Amer. Fauna No. 55 (June), p. 188, Aug. 29, 1936.

Type Locality.—Crooked River, 20 miles southeast of Prineville [= 12 miles south and 6 miles east of Prineville], Crook County, Oreg. *Range.*—Known only from central Oregon, along Crooked River southeast of Prineville and in Deschutes Valley at Warm Springs; vertical range from near 1,500 feet at Warm Springs to 3,400 feet along Crooked River; zonal range, Upper Sonoran (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 45, Nov. 12, 1951).

Peromyscus truei sequoiensis Hoffmeister*

1941. *Peromyscus truei sequoiensis* Hoffmeister, Proc. Biol. Soc. Washington, vol. 54, p. 129, Sept. 30, 1941.

Type Locality.—One mile west of Guerneville, Sonoma County, Calif. *Range.*—Narrow humid northwest coastal belt of California and extreme southwest Oregon, west of crest of Coast Range, from Galice, Oreg., south to Marin County, Calif. Eastward known limits of occurrence: Near Happy Camp and Taylor Creek, Siskiyou County; 3 miles west of summit of Mount Sanhedrin, Mendocino County; Freestone, Sonoma County; and Ross, Marin County; vertical range from 50 feet at Guerneville, Sonoma County, to 5,500 feet at Taylor Creek, Salmon Mountains, Siskiyou County; zonal range, Transition;

possibly entering Canadian, as in Salmon Mountains (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 53, Nov. 12, 1951).

Peromyscus truei gilberti (J. A. Allen) *

1893. *Sitomys gilberti* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 188, Aug. 18, 1893.

1896. *Peromyscus gilberti* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 267, Dec. 4, 1896.

1909. *Peromyscus truei gilberti* Osgood, North Amer. Fauna No. 28, p. 169, Apr. 17, 1909.

Type Locality.—Bear Valley, San Benito County, Calif. *Range.*—Southwestern (but not coastal) Oregon and foothills bordering Great Valley of California (except around southern end of San Joaquin Valley) and in Coast Range south from area of Monterey Bay to Ventura. In particular, from Josephine County, Oreg., south through Shasta Valley of California above western flank of Sierra Nevada to Fresno County, possibly central Tulare County, and along eastern flank of Coast Range east of Humboldt, Mendocino, (eastern) Sonoma, and Marin Counties, and Santa Clara Valley to Temblor Range, and in Outer Coast Range south of Santa Cruz County to Matilija, Ventura County; locally within Great Valley on Marysville Buttes, Sutter County; vertical range from near sea level at Seaside to 5,900 feet on Santa Lucia Peak, Monterey County; zonal range, Upper Sonoran, rarely Transition (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 58, Nov. 12, 1951).

Peromyscus truei dyselius Elliot*

1898. *Peromyscus dyselius* Elliot, Field Columb. Mus. Publ. 27, Zool. Ser., vol. 1, No. 10 (March), p. 207, Apr. 16, 1898.

1951. *Peromyscus truei dyselius* Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 63, Nov. 12, 1951.

Type Locality.—Portola, San Mateo County, Calif. *Range.*—In California, Santa Cruz Mountains and slopes to westward in San Mateo, Santa Clara, and Santa Cruz Counties; vertical range from near sea level at Redwood City and Palo Alto to near 2,787 feet on Black Mountain; zonal range, Upper Sonoran and Transition (Hoffmeister, loc. cit.).

Peromyscus truei montipinoris Elliot*

1904. *Peromyscus montipinoris* Elliot, Field Columb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 264, Mar. 7, 1904.

1951. *Peromyscus truei montipinoris* Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 66, Nov. 12, 1951.

Type Locality.—Lockwood Valley, near Mount Pinos, Ventura County, Calif. *Range.*—In California, from Sierra Nevadas south of Kaweah River (and west of south fork of Kern river) south in Tehachapi Mountains to Calabasas, Los Angeles County, and northwest in San Emigdio and Temblor Ranges to lat. 35° 20′ N.; vertical range from 1,200 feet at Calabasas to 10,650 feet along Whitney Creek, Tulare County; zonal range, Lower Sonoran to Transition, locally Canadian; principally Upper Sonoran (Hoffmeister, loc. cit.).

Peromyscus truei chlorus Hoffmeister*

1941. *Peromyscus truei chlorus* Hoffmeister, Proc. Biol. Soc. Washington, vol. 54, p. 131, Sept. 30, 1941.

Type Locality.—Lost Horse Mine, southern end of Little San Bernardino Mountains (69 miles east of Riverside), Riverside County, Calif. *Range.*—Interior mountain and adjacent slopes of southern California, particularly those mountain ranges bordering the western edge of Mohave and Colorado Deserts, including eastern San Gabriel and San Bernardino, Little San Bernardino, San Jacinto, and Santa Rosa Mountains; vertical range from 2,000 feet at Hesperia to over 7,500 feet at Saragossa Spring, San Bernardino County; zonal range, Lower and Upper Sonoran; possibly enters Transition (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 71, Nov. 12, 1951).

Peromyscus truei martirensis (J. A. Allen)*

1893. *Sitomys martirensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 187, Aug. 18, 1893.

1903. *Peromyscus hemionotis* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 157, May 7, 1903. (Rosarito Divide, Sierra San Pedro Mártir, Baja California, México.)

1909. *Peromyscus truei martirensis* Osgood, North Amer. Fauna No. 28, p. 171, Apr. 17, 1909.

Type Locality.—Sierra San Pedro Mártir, Baja California, México. Altitude, 7,000 feet. *Range.*—Laguna Mountains of southern California and Sierra Juárez and Sierra San Pedro Mártir of northern Baja California; vertical range from 4,200 feet at Los Pozos to 8,500 feet at Vallecitos; zonal range, Upper Sonoran and Transition (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 75, Nov. 12, 1951).

Peromyscus truei lagunae Osgood†*

1909. *Peromyscus truei lagunae* Osgood, North Amer. Fauna No. 28, p. 172, Apr. 17, 1909.

Type Locality.—La Laguna, Sierra Laguna, Baja California, México. *Range.*—Restricted to Laguna and Victoria Mountains of southern Baja California; vertical range from 4,000 feet at El Sauce [=El Sauz] to 6,000 feet in Laguna Valley; zonal range, Upper Sonoran (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 76, Nov. 12, 1951).

Peromyscus truei erasmus Finley*

1952. *Peromyscus truei erasmus* Finley, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 20, p. 265, May 23, 1952.

Type Locality.—West side of Río de la Saucida, 8 miles northeast of Durango, Durango, México. Altitude, 6,200 feet. *Range.*—Known from type locality only.

Peromyscus truei gentilis Osgood†*

1904. *Peromyscus gratus gentilis* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 61, Mar. 21, 1904.

1909. *Peromyscus truei gentilis* Osgood, North Amer. Fauna No. 28, p. 175, Apr. 17, 1909.

Type Locality.—Lagos, Jalisco, México. *Range.*—North-central México from near United States boundary southward along Cordillera to eastern Jalisco and central Guanajuato (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 47, Nov. 12, 1951).

Peromyscus truei gratus Merriam†*

1898. *Peromyscus gratus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 123, Apr. 30, 1898.
1903. *Peromyscus pavidus* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 142, Mar. 20, 1903. (Pátzcuaro, Michoacán, México.)
1904. *Peromyscus zelotes* Osgood†, Proc. Biol. Soc. Washington, vol. 17, p. 67, Mar. 21, 1904. (Queréndaro, Michoacán, México.)

Type Locality.—Tlalpan, Distrito Federal, México. *Range.*—South-central México, from central Jalisco, southern Querétaro, and northern Hidalgo, south to central Oaxaca (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 50, Nov. 12, 1951).

Peromyscus nasutus nasutus (J. A. Allen)*

1891. *Vesperimus nasutus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 299, June 30, 1891.
1909. *Peromyscus nasutus* Osgood, North Amer. Fauna No. 28, p. 176, Apr. 17, 1909.

Type Locality.—Estes Park, Larimer County, Colo. *Range.*—Mountains of Colorado, Navajo Mountain in southwestern San Juan County, Utah (Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 452, Dec. 31, 1935), rough Upper Sonoran country of New Mexico except extreme northwestern and southwestern parts (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 157, Mar. 1, 1932), eastern Arizona, and western Texas.

Peromyscus nasutus comanche Blair

1943. *Peromyscus comanche* Blair, Contrib. Lab. Vert. Zool. Univ. Michigan No. 24, p. 7, July 1943.
1951. *Peromyscus nasutus comanche* Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 25, Nov. 12, 1951.

Type Locality.—Tule Canyon, Briscoe County, Tex. *Range.*—Tule Canyon and adjacent canyons along Break of Plains in Briscoe and Garza Counties, western Texas.

Peromyscus nasutus griseus Benson

1932. *Peromyscus nasutus griseus* Benson, Univ. California Publ. Zool., vol. 38, No. 5, p. 338, Apr. 14, 1932.

Type Locality.—Malpais, 3½ miles west of Carrizozo, Lincoln County, N. Mex. Altitude, 5,150 feet. *Range.*—Lava beds in Tularosa Basin, N. Mex.

Peromyscus polius Osgood†*

1904. *Peromyscus polius* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 61, Mar. 21, 1904.

Type Locality.—Colonia García, Chihuahua, México. *Range.*—Known from type locality only.

Peromyscus difficilis difficilis (J. A. Allen)*

1891. *Vesperimus difficilis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 298, June 30, 1891.

1897. [*Peromyscus*] *difficilis* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 518.

Type Locality.—Sierra de Valparaiso, Zacatecas, México. *Range.*—Sierra Madre from southwestern Chihuahua south through Durango and Zacatecas, then east and southeast to certain mountainous parts of Nuevo León (Koestner, Journ. Mamm., vol. 25, No. 3, p. 288, Nov. 8, 1944; Hooper, Journ. Mamm., vol. 28, No. 1, p. 51, Feb. 17, 1947), Guanajuato and northern Hidalgo, and thence north through parts of San Luis Potosí to mountains of southern Coahuila. Zonal range, chiefly Transition.

Peromyscus difficilis amplus Osgood†*

1904. *Peromyscus amplus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 62, Mar. 21, 1904.

1909. *Peromyscus difficilis amplus* Osgood, North Amer. Fauna No. 28, p. 181, Apr. 17, 1909.

Type Locality.—Coixtlahuaca, Oaxaca, México. *Range.*—Mountains of north-central Oaxaca, Puebla, southeastern Veracruz, Tlaxcala (Davis, Journ. Mamm., vol. 25, No. 4, p. 396, Dec. 12, 1944), and southern Hidalgo, México.

Peromyscus difficilis felipensis Merriam†*

1898. *Peromyscus felipensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 122, Apr. 30, 1898.

1909. *Peromyscus difficilis felipensis* Osgood, North Amer. Fauna No. 28, p. 182, Apr. 17, 1909.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,200 feet. *Range.*—High elevations (8,000 feet to 11,000 feet) on mountains surrounding Valley of México; reappearing at similar elevations in mountains northeast of city of Oaxaca.

Peromyscus bullatus Osgood†*

1904. *Peromyscus bullatus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 63, Mar. 21, 1904.

Type Locality.—Perote, Veracruz, México. *Range.*—Recorded also from Limón, Veracruz, México (Hoffmeister, Illinois Biol. Monogr., vol. 21, No. 4, p. 25, Nov. 12, 1951).

melanophrys—group

Peromyscus melanophrys melanophrys (Coues)†*

1874. *Hesperomys* (*Vesperimus*) *melanophrys* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 26, p. 181, Dec. 15, 1874.

1884. *Hesperomys melanophrys* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1894. *Peromyscus leucurus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 14, p. 364, November 1894. (Tehuantepec, Oaxaca, México.)

1897. *P*[*eromyscus*] *melanophrys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 51, Mar. 15, 1897.

1903. *Peromyscus leucurus gadovii* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 484, May 1903. (San Carlos=Yautepec, Oaxaca, México.)

Type Locality.—Santa Efigenia, Oaxaca, México. *Range.*—Southern part of Mexican Plateau, as far south as southern Chiapas. Marginal localities are: In Distrito Federal, Contreras (2,600 meters); in Puebla, Chalchicomula and Tehuacán (1,700 meters); in Oaxaca, Teotitlán (950 meters), 1 km. north-northwest of Cuicatlán (560 meters), and San Miguel; in Chiapas, San Bartolomé and San Vicente; in Oaxaca, near Tehuantepec, Las Vacas, near Totolapa, and San Bartolo [=Coyotepec]; in Guerrero, 15 miles south of Chilpancingo (4,500 feet), Los Sabinos (1,210 meters), and 14 miles south and 1 mile west of Iguala (2,600 feet) (Baker, Univ. Kansas Publ. Nat. Hist., vol. 5, No. 18, p. 254, Apr. 10, 1952).

Peromyscus melanophrys zamorae Osgood†*

1904. *Peromyscus melanophrys zamorae* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 65, Mar. 21, 1904.

Type Locality.—Zamora, Michoacán, México. *Range.*—South-central México. Marginal localities are: In Hidalgo, Zimapán; in Michoacán, Querendaro and Zamora (Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 18, p. 254, Apr. 10, 1952).

Peromyscus melanophrys consobrinus Osgood†*

1904. *Peromyscus melanophrys consobrinus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 66, Mar. 21, 1904.

Type Locality.—Berriozábal, Zacatecas, México. *Range.*—Northern part of Mexican table-land. Marginal localities are: In Zacatecas, 2 miles east-southeast of Troncosa (7,000 feet); in San Luis Potosí, Hacienda La Parada, 2 miles northwest of Tepeyac (3,400 feet), and 14 miles north and 29 miles west of Ciudad del Maiz; in Guanajuato, Silao; in Zacatecas, 3 miles southwest of Jalpa (4,600 feet) and Monte Escobedo (Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 18, pp. 254–255, Apr. 10, 1952).

Peromyscus melanophrys xenurus Osgood†*

1904. *Peromyscus xenurus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 67, Mar. 21, 1904.

1952. *Peromyscus melanophrys xenurus* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 18, p. 256, Apr. 10, 1952.

Type Locality.—Durango, Durango, México. *Range.*—Southeastern Durango. Marginal localities in Durango are: 3 miles north-northeast of Cuencame, and 4 miles west of Durango (Baker, loc. cit.).

Peromyscus melanophrys coahuiliensis Baker

1952. *Peromyscus melanophrys coahuiliensis* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 18, p. 257, Apr. 10, 1952.

Type Locality.—Seven miles south and one mile east of Gomez Farias, Coahuila, México. Altitude, 6,500 feet. *Range.*—Known only from desert areas of Lower Sonoran Zone in southeastern Coahuila; probably found in similar country in other parts of southern Coahuila and in part of southwestern Nuevo León, northern San Luis Potosí, and northeastern Zacatecas. Marginal localities in Coahuila are: 17 miles north and 8 miles west of Saltillo, 7 miles south and 1 mile east of Gomez Farias, and 2 miles east and ½ mile south of La Ventura.

Peromyscus melanophrys micropus Baker*

1952. *Peromyscus melanophrys micropus* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 18, p. 255, Apr. 10, 1952.

Type Locality.—Three miles north of Guadalajara, Jalisco, México. *Range.*—Eastern and central Jalisco, México. Marginal localities in Jalisco are: 2 miles northwest of Magdalena (4,500 feet), 2 miles east-southeast of Tequilla (4,000 feet), 3 miles north of Guadalajara, and 4 miles northeast of Ocotlán (5,050 feet).

Peromyscus mekisturus Merriam†*

1898. *Peromyscus mekisturus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 124, Apr. 30, 1898.

Type Locality.—Chalchicomula, Puebla, México. Altitude, 8,400 feet. *Range.*—Known from type locality only.

lepturus—group

Peromyscus lepturus Merriam†*

1898. *Peromyscus lepturus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 118, Apr. 30, 1898.

Type Locality.—Mount Zempoaltepec, Oaxaca, México. Altitude, 8,200 feet. *Range.*—Known from type locality only.

Peromyscus lophurus Osgood†*

1904. *Peromyscus lophurus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 72, Mar. 21, 1904.

Type Locality.—Todos Santos, Huehuetenango, Guatemala. Altitude, 8,500 feet. *Range.*—Highlands of Chiapas, México, and of western Guatemala.

Peromyscus hondurensis Goodwin*

1941. *Peromyscus hondurensis* Goodwin, Amer. Mus. Nov. No. 1121, p. 1, June 9, 1941.

Type Locality.—Muya, a hill covered with second-growth timber about 5 miles north of Chinacla, La Paz, Honduras. Altitude, about 3,500 feet. *Range.*—Western Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 163, May 29, 1942).

Peromyscus simulatus Osgood†*

1904. *Peromyscus simulatus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 72, Mar. 21, 1904.

Type Locality.—Near Jico, Veracruz, México. Altitude, 6,000 feet. *Range.*—Known from type locality only.

Peromyscus guatemalensis guatemalensis Merriam†*

1898. *Peromyscus guatemalensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 118, Apr. 30, 1898.

Type Locality.—Todos Santos, Huehuetenango, Guatemala. Altitude, 10,000 feet. *Range.*—High altitudes of southern Chiapas and highlands of western and southern Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 42, Dec. 12, 1934).

Peromyscus guatemalensis tropicalis Goodwin*

1932. *Peromyscus guatemalensis tropicalis* Goodwin, Amer. Mus. Nov., No. 560, p. 3, Sept. 16, 1932.

Type Locality.—Chimoxan, about 40 miles northeast of Cobán, Alta Verapaz, Guatemala. Altitude, 1,500 feet. *Range.*—Southeastern Guatemala, southern British Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 42, Dec. 12, 1934), central and southern Honduras (Goodwin, Bull. Amer. Mus. Nat Hist., vol. 79, p. 161, May 29, 1942).

Peromyscus nudipes nudipes (J. A. Allen)*

1891. *Hesperomys (Vesperimus?) nudipes* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 213, Apr. 17, 1891.

1894. *Peromyscus nudipes* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 14, p. 365, November 1894.

1902. *Peromyscus cacabatus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 29, April 1902. (Bóquete, Chiriquí, Panamá.)

Type Locality.—La Carpintera, Cartago, Costa Rica. *Range.*—Mountains of central Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 387, Dec. 31, 1946) south along Cordillera to Chiriquí, Panamá (see Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 86, Apr. 26, 1920).

Peromyscus nudipes hesperus Harris

1940. *Peromyscus nudipes hesperus* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 423, p. 1, Nov. 29, 1940.

Type Locality.—Hacienda Santa María, Guanacaste, about 15 miles northeast of Liberia, Costa Rica. Altitude, 3,200 feet. *Range.*—Northwestern Costa Rica, including Nicoya Peninsula (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 388, Dec. 31, 1946).

Peromyscus nudipes orientalis Goodwin*

1938. *Peromyscus nudipes orientalis* Goodwin, Amer. Mus. Nov., No. 987, p. 3, May 13, 1938.

Type Locality.—El Sauce Peralta, a farm on Atlantic railroad, less than halfway from San José to Limón, Cartago, Costa Rica. Altitude, about 1,000 feet. *Range.*—Lowlands of eastern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 388, Dec. 31, 1946).

Peromyscus altilaneus Osgood†*

1904. *Peromyscus altilaneus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 74, Mar. 21, 1904.

Type Locality.—Todos Santos, Huehuetenango, Guatemala. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Peromyscus furvus J. A. Allen and Chapman*

1897. *Peromyscus furvus* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 201, June 16, 1897.

Type Locality.—Jalapa, Veracruz, México. *Range.*—Known from a few localities in humid tropical parts of northern Veracruz and Puebla, México.

Peromyscus latirostris Dalquest*

1950. *Peromyscus latirostris* Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 8, July 10, 1950.

Type Locality.—Apetsco, near Xilitla, San Luis Potosí, México. Altitude, 2,700 feet. *Range.*—Known only from a few localities near type locality, from an elevation of 2,000 to 6,000 feet, in southeastern San Luis Potosí.

Peromyscus ochraventer Baker

1951. *Peromyscus ochraventer* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 12, p. 213, Dec. 15, 1951.

Type Locality.—Seventy kilometers by highway south of Ciudad Victoria and 6 kilometers west of Pan-American highway at El Carrizo, Tamaulipas, México. *Range.*—Known from type locality only; probably found in other localities along humid, east face of Sierra Madre Oriental in Tamaulipas.

mexicanus—group

Peromyscus mexicanus mexicanus (Saussure)*

1860. *H[esperomys] mexicanus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 103.

1884. *Hesperomys mexicanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1894. *P[eromyscus] mexicanus* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 14, p. 364, November 1894.

1898. *Peromyscus tehuantepecus* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 122, Apr. 30, 1898. (Tehuantepec, Oaxaca, México.)

Type Locality.—México; assumed to be vicinity of Mirador, Veracruz. [Restricted to 10 kilometers east of Mirador by Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 8, July 10, 1950.] *Range.*—Tropical parts of eastern and southern México from northern Puebla and southward to southern Veracruz and then south and west to southern Oaxaca and northern Chiapas (Tuxtla Gutiérrez; see Hooper, Journ. Mamm., vol. 28, No. 1, p. 52, Feb. 17, 1947). Recorded also at Xilitla, San Luis Potosí, México (Dalquest, loc. cit.).

Peromyscus mexicanus totontepecus Merriam†*

1898. *Peromyscus mexicanus totontepecus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 121, Apr. 30, 1898.

1898. *Peromyscus mexicanus orizabae* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 121, Apr. 30, 1898. (Orizaba, Veracruz, México.)

Type Locality.—Totontepec, Oaxaca, México. Altitude, 6,500 feet. *Range.*—Western Veracruz and east-central Oaxaca west of range of *mexicanus.*

Peromyscus mexicanus teapensis Osgood†*

1904. *Peromyscus mexicanus teapensis* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 69, Mar. 21, 1904.

Type Locality.—Teapa, Tabasco, México. Altitude, 800 feet. *Range.*—Humid tropical parts of northern Tabasco.

Peromyscus mexicanus gymnotis Thomas*

1894. *Peromyscus gymnotis* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 14, p. 365, November 1894.

1909. *Peromyscus mexicanus gymnotis* Osgood, North Amer. Fauna No. 28, p. 205, Apr. 17, 1909.

Type Locality.—Guatemala. *Range.*—In Guatemala probably restricted to Pacific coastal hills at low elevation on western slope of Sierra Madre (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 44, Dec. 12, 1934) northward at least to Huehuetán, southwestern Chiapas, México.

Peromyscus mexicanus saxatilis Merriam†*

1898. *Peromyscus mexicanus saxatilis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 121, Apr. 30, 1898.

1908. *Peromyscus nicaraguae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 649, Oct. 13, 1908. (Matagalpa, Matagalpa, Nicaragua.)

Type Locality.—Jacaltenango, Huehuetenango, Guatemala. Altitude, 5,400 feet. *Range.*—Southern Chiapas (see Hooper, Journ. Mamm., vol. 28, No. 1, p. 52, Feb. 17, 1947); southwestern Guatemala and central Honduras south to Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 162, May 29, 1942).

Peromyscus mexicanus philombrius Dickey

1928. *Peromyscus mexicanus philombrius* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 3, Jan. 25, 1928.

Type Locality.—Los Esesmiles, Chalatenango, El Salvador. Altitude, 8,000 feet. *Range.*—Rain forest, above 8,000 feet, on range of mountains known as Los Esesmiles.

Peromyscus mexicanus salvadorensis Dickey*

1928. *Peromyscus mexicanus salvadorensis* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 4, Jan. 25, 1928.

Type Locality.—Mount Cacaguatique, San Miguel, El Salvador. Altitude, 3,500 feet. *Range.*—Shaded ravines and damp jungle growth on Mount Caraguatique, El Salvador, at altitudes ranging from 3,500 to 4,000 feet, and in dry stream beds, brush, and even up into pines on nearby Pine Peaks, Volcán Conchagua, at from 3,300 to 3,500 feet. Zonal range, Upper Tropical.

Peromyscus allophylus Osgood†*

1904. *Peromyscus allophylus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 71, Mar. 21, 1904.

Type Locality.—Huehuetán, Chiapas, México. Altitude, 200 feet. *Range.*—Known from type locality; and recorded also at Finca Esperanza and Cerro Ovando, Chiapas (Hooper, Journ. Mamm., vol. 28, No. 1, p. 52, Feb. 17, 1947).

Peromyscus banderanus banderanus J. A. Allen*

1897. *Peromyscus banderanus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 51, Mar. 15, 1897.

Type Locality.—Valle de Banderas, Nayarit, México. *Range.*—Pacific coast of México from Bahía Banderas, Nayarit, to vicinity of Acapulco, Guerrero.

Peromyscus banderanus vicinior Osgood†*

1904. *Peromyscus banderanus vicinior* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 68, Mar. 21, 1904.

Type Locality.—La Salada, Michoacán, México. *Range.*—Western México in Michoacán and Guerrero, occupying hot valleys immediately east of range of typical *banderanus* (see also Osgood, Journ. Mamm., vol. 26, No. 3, p. 300, Nov. 14, 1945).

Peromyscus banderanus angelensis Osgood†*

1904. *Peromyscus banderanus angelensis* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 69, Mar. 21, 1904.

Type Locality.—Puerto Angel, Oaxaca, México. *Range.*—Coast of southern Oaxaca; known from two localities only.

Peromyscus yucatanicus yucatanicus J. A. Allen and Chapman*

1897. *Peromyscus yucatanicus* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 8, Feb. 23, 1897.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Northern parts of Peninsula of Yucatán. Zonal range, chiefly Arid Tropical.

Peromyscus yucatanicus badius Osgood†*

1904. *Peromyscus yucatanicus badius* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 70, Mar. 21, 1904.

Type Locality.—Apazote, Campeche, México. *Range.*—Known from type locality only.

Peromyscus stirtoni Dickey

1928. *Peromyscus stirtoni* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 5, Jan. 25, 1928.

Type Locality.—Río Goascorán, lat. 13° N., La Unión, El Salvador. Altitude, 100 feet. *Range.*—Tropical Zone of southeastern El Salvador and extreme southwestern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 162, May 29, 1942).

megalops—group

Peromyscus megalops megalops Merriam†*

1898. *Peromyscus megalops* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 119, Apr. 30, 1898.

Type Locality.—Mountains near Ozolotepec, Oaxaca, México. *Range.*—Known from type locality only.

Peromyscus megalops auritus Merriam†*

1898. *Peromyscus auritus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 120, Apr. 30, 1898.

1898. *Peromyscus comptus* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 120, Apr. 30, 1898. (Mountains near Chilpancingo, Guerrero, México.)

1909. *Peromyscus megalops auritus* Osgood, North Amer. Fauna No. 28, p. 214, Apr. 17, 1909.

Type Locality.—Mountains 15 miles west of Oaxaca, Oaxaca, México. Altitude, 9,300 feet. *Range.*—High altitudes in mountains of western Oaxaca and southeastern Guerrero, México.

Peromyscus megalops melanurus Osgood†*

1909. *Peromyscus megalops melanurus* Osgood, North Amer. Fauna No. 28, p. 215, Apr. 17, 1909.

Type Locality.—Pluma, Oaxaca, México. Altitude, 4,600 feet. *Range.*—Known from type locality only.

Peromyscus melanocarpus Osgood†*

1904. *Peromyscus melanocarpus* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 73, Mar. 21, 1904.

Type Locality.—Mount Zempoaltepec, Oaxaca, México. Altitude, 8,000 feet. *Range.*—Known from upper slopes of Mount Zempoaltepec only.

Peromyscus zarhynchus Merriam†*

1898. *Peromyscus zarhynchus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 117, Apr. 30, 1898.

1898. *Peromyscus zarhynchus cristobalensis* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 117, Apr. 30, 1898. (San Cristóbal, Chiapas, México.)

Type Locality.—Tumbalá, Chiapas, México. Altitude, 5,500 feet. *Range.*—Highlands of Chiapas, México, and Guatemala.

Peromyscus grandis Goodwin

1932. *Peromyscus grandis* Goodwin, Amer. Mus. Nov. No. 560, p. 4, Sept. 16, 1932.

Type Locality.—Finca Concepción, 35 miles east of Cobán, Alta Verapaz, Guatemala. Altitude, 3,750 feet. *Range.*—Known from type locality only.

Subgenus MEGADONTOMYS[15] Merriam

1898. *Megadontomys* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 115, Apr. 30, 1898. (Type, *Peromyscus thomasi* Merriam.)

Peromyscus thomasi Merriam†*

1898. *Peromyscus* (*Megadontomys*) *thomasi* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 116, Apr. 30, 1898.

Type Locality.—Mountains near Chilpancingo, Guerrero, México. Altitude, 9,700 feet. *Range.*—High altitudes in mountains of central Guerrero.

Peromyscus nelsoni Merriam†*

1898. *Peromyscus* (*Megadontomys*) *nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 116, Apr. 30, 1898.

Type Locality.—Jico, Veracruz, México. Altitude, 6,000 feet. *Range.*—Known from type locality only.

Peromyscus flavidus (Bangs)*

1902. *Megadontomys flavidus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 27, April 1902.

1909. *Peromyscus flavidus* Osgood, North Amer. Fauna No. 28, p. 221, Apr. 17, 1909.

Type Locality.—Bóquete, south slope of Volcán de Chiriquí, Chiriquí, Panamá. *Range.*—Volcán de Chiriquí, Panamá, and probably adjacent parts of Costa Rica at elevations from 3,000 to 5,000 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 390, Dec. 31, 1946).

Peromyscus pirrensis Goldman†*

1912. *Peromyscus pirrensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 5, Sept. 20, 1912.

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[15] Revised by Osgood, North Amer. Fauna No. 28, pp. 218–222, Apr. 17, 1909.

Type Locality.—Head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 4,500 feet. *Range.*—Recorded also near Mount Tacarcuna, Darién (Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 366, June 9, 1916).

Subgenus OCHROTOMYS[16] Osgood

1909. *Ochrotomys* Osgood, North Amer. Fauna No. 28, p. 222, Apr. 17, 1909. (Type, *Arvicola nuttalli* Harlan.)

Peromyscus nuttalli nuttalli (Harlan)*

1832. *Arvicola nuttalli* Harlan, Monthly Amer. Journ. Geol. Nat. Sci., Philadelphia, p. 446, April 1832.

1884 *Hesperomys aureolus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

1898. *Peromyscus nuttalli* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 197, March 1898.

Type Locality.—Norfolk, Norfolk County, Va. *Range.*—Southeastern Virginia and northeastern North Carolina west through Great Smoky Mountains of Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 281, Feb. 14, 1939) to Mammoth Cave in central Kentucky (Hibbard, Journ. Mamm., vol. 16, No. 4, p. 329, Nov. 15, 1935).

Peromyscus nuttalli lewisi A. H. Howell†*

1939. *Peromyscus nuttalli lewisi* A. H. Howell, Journ. Mamm., vol. 20, No. 4, p. 498, Nov. 14, 1939.

Type Locality.—Amelia Court House, Amelia County, south-central Virginia. *Range.*—South-central Virginia, from Campbell and Amelia Counties south to Brunswick County (Handley and Patton, Wild mammals of Virginia, p. 166, 1947).

Peromyscus nuttalli aureolus (Audubon and Bachman)*

1841. *Mus* (*Calomys*) *aureolus* Audubon and Bachman, Proc. Acad. Nat. Sci. Philadelphia, vol. 1, p. 98. (For status see Goldman, Journ. Mamm., vol. 25, No. 4, p. 414, Dec. 12, 1944.)

1909. *Peromyscus nuttalli aureolus* Osgood, North Amer. Fauna No. 28, p. 225, Apr. 17, 1909.

Type Locality.—In oak forests of South Carolina. *Range.*—Southeastern United States from North Carolina to northern Florida (Sherman, Proc. Florida Acad. Sci. for 1936, vol. 1, p. 117, 1937); west to southern Louisiana (see Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 244, Nov. 22, 1943).

Peromyscus nuttalli flammeus Goldman†*

1941. *Peromyscus nuttalli flammeus* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 190, Dec. 8, 1941.

Type Locality.—Delight, Pike County, southwestern Arkansas. *Range.*—Southeastern Missouri, eastern and southern Arkansas, northern Louisiana, and west to eastern Oklahoma and eastern Texas.

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[16] Revised by Osgood, North Amer. Fauna No. 28, pp. 222–226, Apr. 17, 1909; and by Goldman, Proc. Biol. Soc. Washington, vol. 54, pp. 189–192, Dec. 8, 1941. According to Blair, Journ. Mamm., vol. 23, No. 2, p. 203, June 6, 1932, this may be a distinct genus.

Subgenus PODOMYS [17] Osgood

1909. *Podomys* Osgood, North Amer. Fauna No. 28, p. 226, Apr. 17, 1909. (Type, *Hesperomys floridanus* Chapman.)

Peromyscus floridanus (Chapman) *

1889. *Hesperomys floridanus* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 117, June 7, 1889.

1890. *Hesperomys macropus* Merriam†, North Amer. Fauna No. 4, p. 53, Oct. 8, 1890. (Lake Worth, Palm Beach County, Fla.)

1896. *Peromyscus floridanus* Bangs, Proc. Biol. Soc. Washington, vol. 10. p. 122, Nov. 5, 1896.

Type Locality.—Gainesville, Alachua County, Fla. *Range.*—Central part of peninsular Florida from coast to coast.

Genus BAIOMYS [18] True

1894, *Baiomys* True, Proc. U. S. Nat. Mus., vol. 16 (1893), p. 758, Feb. 7, 1894. (Type, *Hesperomys taylori* Thomas.)

Baiomys taylori taylori (Thomas) *

1887. *Hesperomys* (*Vesperimus*) *taylori* Thomas, Ann. Mag. Nat. Hist., ser. 5, vol. 19, p. 66, January 1887.

1907. *Baiomys taylori* Mearns, U. S. Nat. Mus. Bull. 56, p. 381, Apr. 13, 1907.

Type Locality.—San Diego, Duval County, Tex. *Range.*—Southern Texas from vicinity of Matagorda Bay westward to Bexar County and thence south to Rio Grande; south into Nuevo León and thence to southern Tamaulipas. Zonal range, Lower Sonoran.

Baiomys taylori ater Blossom and Burt

1942. *Baiomys taylori ater* Blossom and Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 465, p. 2, Oct. 8, 1942.

Type Locality.—Seven miles west of Hereford, Cochise County, Ariz. *Range.*—Known from type locality only, but may occur in other parts of southern Arizona and in northern Sonora east of Nogales.

Baiomys taylori subater (V. Bailey) †*

1905. *Peromyscus taylori subater* V. Bailey, North Amer. Fauna No. 25, p. 102, Oct. 24, 1905.

1912. *Baiomys taylori subater* Miller, U. S. Nat. Mus. Bull. 79, p. 137, Dec. 31, 1912.

Type Locality.—Bernard Creek, near Columbia, Brazoria County, Tex. *Range.*—Coast region of southeastern Texas from vicinity of Matagorda Bay eastward at least to Jefferson County (Blair, Journ. Mamm., vol. 23, No. 2, p. 202, May 14, 1942) and north to Colorado County, Tex. (Baker, Journ. Mamm., vol. 21, No. 2, p. 223, May 16, 1940).

Baiomys taylori paulus (J. A. Allen) *

1903. *Peromyscus paulus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 598. Nov. 12, 1903.

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[17] Revised by Osgood, North Amer. Fauna No. 28, pp. 226–228, Apr. 17, 1909.

[18] Revised (as subgenus of *Peromyscus*) by Osgood, North Amer. Fauna No. 28, pp. 252–260, Apr. 17, 1909. For status, see Ellerman, The families and genera of living rodents, vol. 2, p. 401, Mar. 21, 1941.

1904. *Peromyscus allex* Osgood†, Proc. Biol. Soc. Washington, vol. 17, p. 76, Mar. 21, 1904. (Colima, Colima, México. Regarded as identical with *analogus* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 368, Dec. 15, 1952.)

1912. *Baiomys taylori paulus* Miller, Bull. U. S. Nat. Mus., No. 79, p. 137, Dec. 31, 1912.

Type Locality.—Río Sestín, northwestern Durango, México. *Range.*—Lower Sonoran and Arid Tropical parts of western México, from central Chihuahua south and west through Durango, Sinaloa, and Jalisco to Colima.

Baiomys taylori analogus (Osgood)†*

1909. *Peromyscus taylori analogus* Osgood, North Amer. Fauna No. 28, p. 256, Apr. 17, 1909.

1912. *Baiomys taylori analogus* Miller, U. S. Nat. Mus. Bull. 79, p. 137, Dec. 31, 1912.

Type Locality.—Zamora, Michoacán, México. *Range.*—West-central México, from Jalisco and Michoacán eastward to Valley of México.

Baiomys musculus musculus (Merriam)†*

1892. *Sitomys musculus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 170, Sept. 29, 1892.

1907. *Baiomys musculus* Mearns, U. S. Nat. Mus. Bull. 56, p. 381, Apr. 13, 1907.

Type Locality.—Near Colima, Colima, México. *Range.*—Arid Tropical parts of central and southern México from Isthmus of Tehuantepec north to central Veracruz and northwest to Colima and possibly to central Sinaloa; south to Chanquejelve and Sacapulas in western Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 39, Dec. 12, 1934).

Baiomys musculus infernatis Hooper*

1952. *Baiomys musculus infernatis* Hooper, Journ. Mamm., vol. 33, No. 1, p. 96, Feb. 18, 1952.

Type Locality.—Teotitlán, Oaxaca, México. *Range.*—Arid interior basin drained by Río Salado and Río Quiotepec in northern Oaxaca and southeastern Puebla. Known vertical range from Teotitlán, 3,100 feet, Oaxaca, northwest to Tepanco, 6,000 feet, Puebla.

Baiomys musculus pallidus Russell*

1952. *Baiomys musculus pallidus* Russell, Proc. Biol. Soc. Washington, vol. 65, p. 21, Jan. 29, 1952.

Type Locality.—Twelve kilometers northwest of Axochiapan, Morelos, México. Altitude, 3,500 feet. *Range.*—Known from State of Morelos only. Probably occurs throughout Balsas Basin; specimens from Chilpancingo, Guerrero, show intergradation with *musculus.*

Baiomys musculus brunneus (J. A. Allen and Chapman)*

1897. *Peromyscus musculus brunneus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 203, June 16, 1897.

1912. *Baiomys musculus brunneus* Miller, U. S. Nat. Mus. Bull. 79, p. 137, Dec. 31, 1912.

Type Locality.—Jalapa, Veracruz, México. *Range.*—East-central México, in slightly more humid parts than those inhabited by *musculus*.

Baiomys musculus nigrescens (Osgood)†*

1904. *Peromyscus musculus nigrescens* Osgood, Proc. Biol. Soc. Washington, vol. 17, p. 76, Mar. 21, 1904.

1912. *Baiomys musculus nigrescens* Miller, U. S. Nat. Mus. Bull. 79, p. 137, Dec. 31, 1912.

Type Locality.—Valley of Comitán, Chiapas, México. *Range.*—Southern México (State of Chiapas) to central Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 40, Dec. 12, 1934).

Baiomys musculus grisescens Goldman†*

1932. *Baiomys musculus grisescens* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 121, July 30, 1932.

Type Locality.—Comayaguela, on Río Grande opposite Tegucigalpa, Francisco Morazán, Honduras. Altitude, 3,100 feet. *Range.*—From western and central Honduras south to Matagalpa in north-central Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 160, May 29, 1942).

Genus ONYCHOMYS[19] Baird (grasshopper-mice)

1858. *Onychomys* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 458, July 14, 1858. (Type, *Hypudaeus leucogaster* Wied-Neuwied.)

Onychomys leucogaster leucogaster (Wied-Neuwied)*

1841. *Hypudaeus leucogaster* Wied-Neuwied, Reise in das innere Nord-America in . . . 1832 bis 1834, vol. 2, p. 99.

1858. *Onychomys leucogaster* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 459, July 14, 1858.

1884, *Hesperomys leucogaster* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1885. *O[nychomys] leucogaster* var. *pallidus* Herrick, Geol. Nat. Hist. Surv. Minnesota, Ann. Rep. 1884, p. 183. (Lake Traverse, near sources of Minnesota and Bois des Sioux Rivers, S. Dak.)

1889. *O[nychomys] leucogaster* Merriam, North Amer. Fauna No. 2, p. 1, Oct. 30, 1889.

Type Locality.—Mandan Indian village, near Fort Clark, northeastern Oliver County, N. Dak. (see V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 82, Jan. 8, 1927). *Range.*—From Roberts County (Lake Traverse and Sisseton) in northeastern South Dakota; near West Lake Okoboji, Dickinson County, northwestern Iowa (regarded as *breviauratus* by Dice, Journ. Mamm., vol. 5, No. 1, p. 66, Feb. 9, 1924); Brown's Valley in Traverse County and Parker's Prairie in southeastern Otter Tail County, western Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 85, 1945); and Red River Valley (Hankinson and Pembina) westward in prairie region of North Dakota to Linton, Fort Clark and Minot; and northward into southwestern Manitoba (Oak Lake), north to border of Riding Mountain National Park, and intergrading with *missourien-*

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[19] Revised by Hollister, Proc. U. S. Nat. Mus., vol. 47, pp. 427-489, Oct. 29, 1914.

sis in region of Manitoba–Saskatchewan boundary, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 34, Jan. 24, 1947).

Onychomys leucogaster missouriensis (Audubon and Bachman)*

1851. *Mus missouriensis* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, p. 327, and pl. 100, No. 20.

1914. *Onychomys leucogaster missouriensis* Hollister, Proc. U. S. Nat. Mus., vol. 47, p. 438, Oct. 29, 1914.

Type Locality.—Fort Union, near present town of Buford, Williams County, N. Dak. *Range.*—Northeastern Wyoming, western North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 84, Jan. 8, 1927), and eastern and northern Montana; north to southeastern Alberta (Calgary, Medicine Hat, Little Sandhill Creek, near Steveville) and southern Saskatchewan (Carlton, Dundurn, Indian Head, Last Mountain Lake, Osler, Weyburn, Wood Mountain, and east of Frenchman River); zonal range, chiefly arid Transition and Upper Sonoran (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 134, Jan. 24, 1947); east to Glen Ullin, N. Dak.; west and south along Missouri River to Bozeman, Mont.; and southwest along branches of Powder and Little Missouri Rivers into northeastern Wyoming.

Onychomys leucogaster arcticeps Rhoads*

1898. *Onychomys arcticeps* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 194, May 3, 1898.

1914. *Onychomys leucogaster arcticeps* Hollister, Proc. U. S. Nat. Mus., vol. 47, p. 439, Oct. 29, 1914.

Type Locality.—Clapham, Union County, N. Mex. *Range.*—Upper Sonoran Great Plains, from Wyoming and South Dakota to Texas. North to Big Horn River in Wyoming and to Cheyenne River in South Dakota; east to Bonesteele, Gregory County, near Missouri River in South Dakota; western third of Kansas, intergrading with *breviauritus* in Meade and Ellis Counties, Kansas (Black, Kansas State Board Agric. Thirtieth Biennial Rept., 1935–1936, p. 187, 1937); south to Fort Lancaster, southwestern Pecos County, Tex.; and west to Bear River Divide in southwestern Wyoming, western edge of Great Plains (Golden, Salida, and Westcliffe) in eastern Colorado, Panhandle of Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 117, July 1939), and Upper Sonoran plains of eastern New Mexico, including Pecos River Valley from Santa Rosa to Carlsbad, and grading insensibly into *ruidosae* farther west (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 139, Mar. 1, 1932).

Onychomys leucogaster brevicaudus Merriam†*

1891. *Onychomys leucogaster brevicaudus* Merriam, North Amer. Fauna No. 5, p. 52, July 30, 1891.

Type Locality.—Blackfoot, Bingham County, Idaho. *Range.*—Southern Idaho, extreme southwestern Wyoming, northwestern Utah, and west across northern half of Nevada into eastern California. Semiarid southern Idaho from Owyhee County east into Wyoming and north to Pahsimeroi Valley, Custer County (Davis, The Recent mammals of Idaho, p. 278, Apr. 5, 1939); in Utah, east to Wasatch foothills (Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 5, Apr. 10, 1931) and south to Sevier County (Stanford, Journ. Mamm., vol. 12, No. 4, p. 360, Nov. 11, 1931); throughout Upper Sonoran Zone of Nevada north of about lat. 37° N. except northern Washoe County (Hall, Mammals of Nevada, p. 493, July 1, 1946); and extreme eastern border of California, within edge of Great Basin; recorded from Amedee, Lassen County, south to Benton and Long Valley, Mono County; vertical range, from 4,000 feet (Amedee, near Honey Lake) up to 6,900 feet (Farrington Ranch, near Mono Lake); zonal range, characteristically Upper Sonoran, but also Transition locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 167, Sept. 26, 1933).

Onychomys leucogaster utahensis Goldman†*

1939. *Onychomys leucogaster utahensis* Goldman, Journ. Mamm., vol. 20, No. 3, p. 354, Aug. 14, 1939.

Type Locality.—South end of Stansbury Island, Great Salt Lake, Tooele County, Utah. Altitude, 4,250 feet. *Range.*—Western Utah, approximately the area formerly occupied by Pleistocene Lake Bonneville (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 324, Aug. 10, 1952).

Onychomys leucogaster aldousi Goldman†*

1942. *Onychomys leucogaster aldousi* Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 77, June 25, 1942. (Regarded as identical with *utahensis* by Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 324, Aug. 10, 1952.)

Type Locality.—Desert Range Experiment Station, 50 miles west of Milford, Beaver County, Utah. *Range.*—Known only from type locality, but may have an extensive range in desert region of southwestern Utah and adjoining territory in Nevada.

Onychomys leucogaster fuscogriseus Anthony*

1913. *Onychomys leucogaster fuscogriseus* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 32, p. 11, Mar. 7, 1913.

Type Locality.—Ironside, Malheur County, Oreg. Altitude, 4,000 feet. *Range.*—Eastern Washington and Oregon, southwestern Idaho, and northeastern California. Columbian Plateau in southeastern Washington, and Yakima Valley north to Douglas, west to Yakima, east to Asotin, and south to Wallula (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 323, Apr. 9, 1948); arid Upper Sonoran sagebrush plains of eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 178, Aug. 29, 1936); in southwestern Idaho recorded at Weiser in Washington County and at Nampa in Canyon County (Davis, The Recent mammals of Idaho, p. 278, Apr. 5, 1939); northern Washoe County in northwestern Nevada (Hall, Mammals of Nevada, p. 493, July 1, 1946); and valleys of extreme northeastern California; recorded west to Picard, near Lower Klamath Lake, Siskiyou County, and south to Box Springs, on Madeline Plains, at north base of Observation Peak, Lassen County; vertical range, from 4,150 feet (near Tule Lake) up to 5,300 feet (on Madeline Plains); zonal range, Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 167, Sept. 26, 1933).

Onychomys leucogaster melanophrys Merriam†*

1889. *Onychomys leucogaster melanophrys* Merriam, North Amer. Fauna No. 2, p. 2, Oct. 30, 1889.

Type Locality.—Kanab, Kane County, Utah. *Range.*—Canyon lands west of Colorado and Green Rivers in Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 87, Feb. 15, 1951).

Onychomys leucogaster pallescens Merriam†*

1890. *Onychomys melanophrys pallescens* Merriam, North Amer. Fauna No. 3, p. 61, Sept. 11, 1890. (Regarded as valid by Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 451, Dec. 31, 1935, and Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 88, Feb. 15, 1951.)

1895. *Onychomys leucogaster pallescens* J. A. Allen Bull. Amer. Mus. Nat. Hist., vol. 7, p. 225, June 29, 1895.

Type Locality.—Moki Pueblos, Navajo County, Ariz. *Range.*—Southeastern Utah, southwestern Colorado, northwestern New Mexico, and northeastern Arizona. North in Colorado [Grand] River Valley to Fruita, Mesa County, and in Rio Grande Valley to Crestone in southeastern Saguache County, Colorado (Warren, The mammals of Colorado, . . . , p. 193, 1942); west through canyon lands to Colorado and Green Rivers (Kelson, loc. cit.); south to Albuquerque, Laguna, Acoma, and Zuni River in northwestern New Mexico (Hollister, Proc. U. S. Nat. Mus., vol. 47, p. 446, Oct. 29, 1914); and west through northeastern Arizona to Flagstaff.

Onychomys leucogaster fuliginosus Merriam†*

1890. *Onychomys fuliginosus* Merriam, North Amer. Fauna No. 3, p. 59, Sept. 11, 1890.

1913. *O[nychomys] l[eucogaster] fuliginosus* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 216, Dec. 20, 1913.

Type Locality.—Black Tank lava beds [12 to 15 miles north of Dead Man Flat], northeast of San Francisco Mountain, Coconino County, Ariz. *Range.*—Lava beds and piñon and cedar belt, east and northeast of San Francisco Mountain, Ariz.

Onychomys leucogaster ruidosae Stone and Rehn*

1903. *Onychomys ruidosae* Stone and Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 55, p. 22, May 7, 1903.

1913. *Onychomys leucogaster ruidosae* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 216, Dec. 20, 1913.

Type Locality.—Hale's Ranch, Ruidosa, Lincoln County, N. Mex. *Range.*—Chiefly mountainous region of southeastern Arizona and central and southwestern New Mexico. North to Camp Verde, Ariz., and to Las Vegas and Sandia Mountains, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 140, Mar. 1, 1932); east to Capitan Mountains, N. Mex.; and south into northern Chihuahua and northeastern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 50, Feb. 15, 1938).

Onychomys leucogaster capitulatus Hollister†*

1913. *Onychomys leucogaster capitulatus* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 215, Dec. 20, 1913.

Type Locality.—Lower end of Prospect Valley [about 25 miles west-southwest of Supai], Hualpai Indian Reservation, Grand Canyon, Coconino County, Ariz. Altitude, 4,500 feet. *Range.*—Known from type locality and from Aubrey Valley, Ariz.

Onychomys leucogaster albescens Merriam†*

1904. *Onychomys leucogaster albescens* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 124, June 9, 1904.

Type Locality.—Samalayuca, Chihuahua, México. *Range.*—Known only from sand dunes at type locality in northern Chihuahua, and from Mexican boundary monument No. 1 opposite El Paso, Tex. Specimens from El Paso and from near Strauss, Dona Ana County, N. Mex., regarded as approaching *albescens* (Benson, Univ. California Publ. Zool., vol. 40, No. 1, p. 36, June 13, 1933).

Onychomys leucogaster longipes Merriam†*

1889. *Onychomys longipes* Merriam, North Amer. Fauna No. 2, p. 1, Oct. 30, 1889.

1913. *Onychomys leucogaster longipes* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 216, Dec. 20, 1913.

Type Locality.—Concho County, Tex. *Range.*—Central and southern Texas and Nuevo León and Tamaulipas, México. North to Tom Green and Concho Counties, Texas; west to Pecos River; southeast to Rockport and Nueces Bay, Texas; south to Victoria, Tamaulipas. Zonal range, Lower Sonoran. Recorded also from Mustang Island, Tex. (Baker and Lay, Journ. Mamm., vol. 19, No. 4, p. 505, Nov. 14, 1938).

Onychomys leucogaster breviauritus Hollister†*

1913. *Onychomys leucogaster breviauritus* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 216, Dec. 20, 1913.

Type Locality.—Fort Reno, Canadian County, Okla. *Range.*—Eastern Nebraska, eastern and south-central Kansas, and western Oklahoma. From Neligh, Nebr., and Fort Riley and Neosho Falls, Kan., west and south to Ellsworth, Edwards, and Harper Counties (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 77, September 1944), and to Alfalfa and Canadian Counties on east and Woodward and Jackson Counties on west, in western Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 117, July 1939).

Onychomys torridus torridus (Coues)†*

1874. *Hesperomys* (*Onychomys*) *torridus* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 26, p. 183, Dec. 15, 1874.

1884. *Hesperomys torridus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1889. *Onychomys torridus* Merriam, North Amer. Fauna No. 2, p. 3, Oct. 30, 1889.

1896. *Onychomys torridus arenicola* Mearns†, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 3, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 139, Dec. 21, 1896. Río Grande, about 6 miles above El Paso, El Paso County, Tex.)

Type Locality.—Camp Grant, Graham County, Ariz. *Range.*—From Brewster and Presidio Counties in Big Bend region of Texas (Blair, Univ. Michigan Mus. Zool. Misc. Publ. 46, p. 29, June 28, 1940; and Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 28, Aug. 7, 1942), northwest along Pecos River Valley in Texas to Carlsbad in southeastern New Mexico, and west across southern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931),

p. 141, Mar. 1, 1932) and Chihuahua into southeastern Arizona and northern Sonora; north in Río Grande Valley to Socorro, N. Mex.; south to San José de Guaymas in Sonora (Burt, Univ. Michigan Mus. Misc. Publ. 39, p. 51, Feb. 15, 1938) and to Inde in northern Durango, México.

Onychomys torridus perpallidus Mearns†*

1896. *Onychomys torridus perpallidus* Mearns, Preliminary diagnoses of new mammals from the Mexican border of the United States, p. 4, May 25, 1896. (Preprint of Proc. U. S. Nat. Mus., vol. 19, p. 140, Dec. 21, 1896.)

Type Locality.—East bank of Colorado River at Mexican boundary monument No. 204, Yuma County, Ariz. *Range.*—Colorado River Valley in western Arizona; eastward along Bill Williams Fork to Big Sandy Creek and along Gila River and its tributaries to Phoenix and to near Wickenberg (Hatfield, Bull. Chicago Acad. Sci., vol. 6, No. 8, p. 154, Jan. 12, 1942).

Onychomys torridus pulcher Elliot*

1904. *Onychomys pulcher* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 243, Jan. 7, 1904.

1913. *O[nychomys] t[orridus] pulcher* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 215, Dec. 20, 1913.

Type Locality.—Morongo Pass, east end of San Bernardino Mountains, San Bernardino County, Calif. *Range.*—Valley of Colorado River south of Dead Mountains, Clark County, Nev. (Hall, Mammals of Nevada, p. 497, July 1, 1946); Colorado and Mohave Deserts in California; west from Colorado River to Palm Springs and Cabezon, Riverside County, Fairmont, in Antelope Valley, northern Los Angeles County, and over Walker Pass to Onyx, Kern County; north to Purdy and Granite Springs, San Bernardino County, and Little Lake, Inyo County; vertical range, from about 500 feet (near Needles, San Bernardino County) up to 4,900 feet (near Walker Pass, Kern County); zonal range, chiefly Lower Sonoran, but into Upper Sonoran locally (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 168, Sept. 26, 1933); and northeastern Baja California, México.

Onychomys torridus longicaudus Merriam†*

1889. *Onychomys longicaudus* Merriam, North Amer. Fauna No. 2, p. 2, Oct. 30, 1889.

1904. *O[nychomys] torridus longicaudus* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 123, June 9, 1904.

Type Locality.—Saint George, Washington County, Utah. *Range.*—Southwestern Utah; northwestern Arizona north of Colorado River; southern and low western part of Nevada, except extreme southern tip, and north to southern Pershing County (Hall, Mammals of Nevada, p. 495, July 1, 1946); and in California, valleys east of high southern Sierra Nevada, in Mono and Inyo Counties; recorded from Benton, Mono County, southeast to Maturango Springs and Resting Springs, Inyo County; vertical range, from 178 feet below sea level (Furnace Creek Ranch, Death Valley) up to 6,200 feet (3 miles east of Jackass Spring, north end of Panamint Mountains); zonal range, Lower Sonoran and locally Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 168, Sept. 26, 1933).

Onychomys torridus clarus Hollister†*

1913. *Onychomys torridus clarus* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 215, Dec. 20, 1913.

Type Locality.—Keeler, east shore of Owens Lake, Inyo County, Calif. *Range.*—Near vicinity of Owens Lake, Inyo County; recorded north to near Lone Pine, south to Hot Springs Valley near Coso Mountains, and west to neighborhood of Olancha; vertical range, all capture records about 3,600 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 168, Sept. 26, 1933).

Onychomys torridus tularensis Merriam†*

1904. *Onychomys torridus tularensis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 123, June 9, 1904.

Type Locality.—Bakersfield, Kern County, Calif. *Range.*—Southern (upper) end of San Joaquin Valley; recorded east to Weldon, on South Fork of Kern River, Kern County, west to Carrizo Plain, San Luis Obispo County, north to Little Panoche Creek, in San Benito County, and south to Caliente Creek Wash, Kern County, Calif.; vertical range, from 500 feet (on Panoche Creek, Fresno County) up to 5,000 feet (in Kelso Valley, northwestern Kern County); zonal range, chiefly Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 168, Sept. 26, 1933).

Onychomys torridus ramona Rhoads*

1893. *Onychomys ramona* Rhoads, Amer. Nat., vol. 27, p. 833, September 1893.

1904. *Onychomys torridus ramona* Merriam, Proc. Biol. Soc. Washington. vol. 17, p. 124, June 9, 1904.

Type Locality.—San Bernardino Valley [more exactly, Reche Canyon, altitude, 1,250 feet, 4 miles southeast of Colton], San Bernardino County, Calif. *Range.*—San Diegan district in southwestern California, chiefly on its Pacific slope, from Mexican border northwest as far as San Fernando, Los Angeles County; recorded east to Valle Vista, in Jacinto Valley, Riverside County, and to La Puerta Valley and Jacumba, San Diego County; vertical range, from near sea level (mouth of Tia Juana River) up to 3,000 feet (near Banner, San Diego County); zonal range, Lower Sonoran and locally Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 169, Sept. 26, 1933); and northwestern Baja California south to Tecarte Valley.

Onychomys torridus macrotis Elliot*

1903. *Onychomys macrotis* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 155, May 7, 1903.

1914. *Onychomys torridus macrotis* Hollister, Proc. U. S. Nat. Mus., vol. 47, p. 469, Oct. 29, 1914.

Type Locality.—Head of San Antonio River, west slope of Sierra San Pedro Mártir, Baja California, México. *Range.*—From Sierra San Pedro Mártir and southern Hanson Laguna Mountains west to Pacific coast, and south at least to San Quintín, Baja California.

Onychomys torridus yakiensis Merriam†*

1904. *Onychomys torridus yakiensis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 124, June 9, 1904.

Type Locality.—Camoa, Río Mayo, southern Sonora, México. *Range.*—Northern Sinaloa and southeastern Sonora; south to city of Sinaloa and north in southern Sonora as far as Tecoripa (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 52, Feb. 15, 1938).

Onychomys torridus canus Merriam†*

1904. *Onychomys torridus canus* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 124, June 9, 1904.

Type Locality.—San Juan Capistrano, Zacatecas, México. *Range.*—Zacatecas, Aguas Calientes, and southwestern San Luis Potosí; south and east to Río Verde, San Luis Potosí.

Onychomys torridus surrufus Hollister†*

1914. *Onychomys torridus surrufus* Hollister, Proc. U. S. Nat. Mus., vol. 47, p. 472, Oct. 29, 1914.

Type Locality.—Miquihuana, Tamaulipas, México. *Range.*—East side of Mexican tableland, in extreme southeastern Coahuila, southern Nuevo León, and southwestern Tamaulipas.

Genus ZYGODONTOMYS J. A. Allen

1897. *Zygodontomys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 38, Mar. 11, 1897. (Type, *Oryzomys cherriei* J. A. Allen.)

Zygodontomys cherriei cherriei (J. A. Allen)*

1895. *Oryzomys cherriei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 329, Nov. 8, 1895.

1897. *Zygodontomys cherriei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 38, Mar. 11, 1897.

Type Locality.—Boruca, near Río Diquís, Puntarenas, Costa Rica. *Range.*—Southwestern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 399, Dec. 31, 1946) and northwestern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 94, Apr. 26, 1920).

Zygodontomys cherriei ventriosus Goldman†*

1912. *Zygodontomys cherriei ventriosus* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 8, Feb. 19, 1912.

Type Locality.—Tabernilla, Canal Zone, Panamá. *Range.*—Canal Zone (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 94, Apr. 26, 1920).

Zygodontomys seorsus Bangs*

1901. *Zygodontomys seorsus* Bangs, Amer. Nat., vol. 35, p. 642, August 1901.

Type Locality.—San Miguel Island [Isla del Rey], Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from type locality only.

Genus SCOTINOMYS Thomas

1913. *Scotinomys* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 11, p. 408, April 1913. (Type, *Hesperomys teguina* Alston.)

Scotinomys harrisi Goodwin

1945. *Scotinomys harrisi* Goodwin, Amer. Mus. Nov., No. 1279, p. 3, Feb. 21, 1945.

Type Locality.—On savanna at Las Vueltas, Cartago, Costa Rica. Altitude, 8,000 feet. *Range.*—Known from type locality only.

Scotinomys longipilosus Goodwin

1945. *Scotinomys longipilosus* Goodwin, Amer. Mus. Nov., No. 1279, p. 2, Feb. 21, 1945.

Type Locality.—Volcán Irazú, Cartago, Costa Rica. Altitude, 9,400 feet. *Range.*—Known from type locality only.

Scotinomys teguina teguina (Alston)*

1876. *Hesperomys teguina* Alston, Proc. Zool. Soc. London, pt. 2, p. 755, August 1876.

1884. *Hesperomys teguina* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884.

1913. *Scotinomys teguina* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 11, p. 409, April 1913.

1935. *Scotinomys teguina teguina* Sanborn, Field Mus. Nat. Hist. Publ. 340, Zool. Ser., vol. 20, p. 83, May 15, 1935.

Type Locality.—Cobán, Alta Verapaz, Guatemala. *Range.*—Central Guatemala and Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 169, May 29, 1942).

Scotinomys teguina subnubilus Goldman†*

1935. *Scotinomys teguina subnubilus* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 141, Aug. 12, 1935.

Type Locality.—Ocuilapa, 10 miles northwest of Ocozocoautla, and about 25 miles west of Tuxtla Gutiérrez, Chiapas, México. Altitude, 3,500 feet. *Range.*—Known from type locality only, in valley of Río Chiapas, western Chiapas.

Scotinomys teguina rufoniger Sanborn

1935. *Scotinomys teguina rufoniger* Sanborn, Field Mus. Nat. Hist. Publ. 340, Zool. Ser., vol. 20, p. 84, May 15, 1935.

Type Locality.—Mountains west of San Pedro, Copán, northwestern Honduras. Altitude, 4,500 feet. *Range.*—Known only from San Pedro but probably occurs throughout Sierra de Merendón on Honduras–Guatemala border (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 170, May 29, 1942).

Scotinomys teguina cacabatus Goodwin

1945. *Scotinomys teguina cacabatus* Goodwin, Amer. Mus. Nov., No. 1279, p. 1, Feb. 21, 1945.

Type Locality.—Rocky ravines above Villa Quesada, 10 miles northwest of Volcán Poás [near Tapesco on main road to San Carlos], Alajuela, Costa Rica. Altitude, 5,000 feet. *Range.*—Known only from drainage of Río San Carlos, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 408, Dec. 31, 1946).

Scotinomys teguina escazuensis Goodwin*

1945. *Scotinomys teguina escazuensis* Goodwin, Amer. Mus. Nov., No. 1279, p. 2, Feb. 21, 1945.

Type Locality.—Los Higuerónes, in humid tropical highlands above town of Escazú, San José, Costa Rica. Altitude, 5,000 feet. *Range.*—Central Costa Rica, including high land from Cartago directly south of Reventazón River and west to Cerros de Escazú; limits to northwest and south undetermined (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 408, Dec. 31, 1946).

Scotinomys teguina endersi Goodwin

1946. *Scotinomys teguina endersi* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 409, Dec. 31, 1946.

Type Locality.—Agua Buena, locally known as Cañas Gordas, but west of the real Cañas Gordas, Sabanna de Potrero Grande, Puntarenas, Costa Rica. Altitude, about 3,500 feet. *Range.*—Known only from vicinity of type locality.

Scotinomys teguina irazu (J. A. Allen)*

1904. *Akodon irazu* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 46, Feb. 29, 1904.

1913. *S*[*cotinomys*] *irazu* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 11, p. 409, April 1913.

1946. *Scotinomys teguina irazu* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 410, Dec. 31, 1946.

Type Locality.—Volcán de Irazú, Cartago, Costa Rica. *Range.*—Volcán de Irazú; altitude, 7,000 to about 10,000 feet.

Scotinomys teguina apricus (Bangs)*

1902. *Akodon teguina apricus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 40, April 1902.

1913. *Scotinomys teguina apricus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 11, p. 409, April 1913.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 4,000 feet. *Range.*—Southwestern Panamá and possibly adjacent parts of Costa Rica; limits of range undetermined (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 410, Dec. 31, 1946).

Scotinomys teguina episcopi Enders and Pearson

1939. *Scotinomys teguina episcopi* Enders and Pearson, Not. Naturae, Acad. Nat. Sci. Philadelphia, No. 34, p. 1, Nov. 9, 1939.

Type Locality.—Siolo, Río Colorado, tributary of Río Chiriquí Viejo, 10 miles west-northwest of El Volcán Post Office, Chiriquí, Panamá. Altitude, 4,100 feet. *Range.*—Pacific slopes of Continental Divide, southwestern Panamá, and probably southwestern Costa Rica at altitudes from 3,800 to 5,600 feet. Recorded in Panamá from Valley of Río Colorado, Río Cotito, Río Santa Clara, and slopes of Cerro Pando, where it was found abundantly around milpa clearings (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 411, Dec. 31, 1946).

Scotinomys teguina garichensis Enders and Pearson

1939. *Scotinomys teguina garichensis* Enders and Pearson, Not. Naturae, Acad. Nat. Sci. Philadelphia, No. 34, p. 2, Nov. 9, 1939.

Type Locality.—Río Gariché, 5 miles southwest of El Volcán Post Office, Chiriquí, Panamá. Altitude, 3,200 feet. *Range.*—Pacific slopes of Continental Divide in southwestern Panamá, east of Río Chiriquí Viejo; altitude, 3,200 to 5,000 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 411, Dec. 31, 1949).

Scotinomys teguina leridensis Enders and Pearson

1939. *Scotinomys teguina leridensis* Enders and Pearson, Not. Naturae, Acad. Nat. Sci. Philadelphia, No. 34, p. 3, Nov. 9, 1939.

Type Locality.—Casita Alta, Finca Lerida, Bóquete, Chiriquí, Panamá. Altitude, 7,000 feet. *Range.*—Known from type locality only.

Scotinomys xerampelinus (Bangs)*

1902. *Akodon xerampelinus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 41, April 1902.

1913. *S[cotinomys] xerampelinus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 11, p. 409, Apr. 1913.

Type Locality.—Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 10,300 feet. *Range.*—Volcán de Chiriquí; altitude, 7,000 to 10,300 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 412, Dec. 31, 1946).

Genus SIGMODON[20] Say and Ord (cotton-rats)

1825. *Sigmodon* Say and Ord, Journ. Acad. Nat. Sci. Philadelphia, vol. 4, pt. 2, p. 352. (Type, *Sigmodon hispidus* Say and Ord.)

hispidus—group

Sigmodon hispidus hispidus Say and Ord*

1825. *S[igmodon] hispidus* Say and Ord, Journ. Acad. Nat. Sci. Philadelphia, vol. 4, pt. 2, p. 354.

1884. *Sigmodon hispidus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

Type Locality.—St. Johns River, northeastern Florida. *Range.*—Below 100 feet altitude from North Carolina south to Citrus County in northern Florida (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 119, 1937), westward along Gulf coast into Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 245, Nov. 22, 1943); and northward to Little Rock, Ark. (Dellinger and Black, Journ. Mamm., vol. 21, No. 2, p. 190, May 16, 1940), and Ozark and Howell Counties in south-central Missouri (Leopold and Hall, Journ. Mamm., vol. 26, No. 2, p. 144, July 19, 1945).

Sigmodon hispidus floridanus A. H. Howell†*

1943. *Sigmodon hispidus floridanus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 56, p. 73, June 16, 1943.

Type Locality.—Canal Point, Palm Beach County, Fla. *Range.*—Greater part of central Florida (except coastal beaches) from Orange Lake, Marion County, south to southern side of Okeechobee Lake, Palm Beach County.

Sigmodon hispidus littoralis Chapman*

1889. *Sigmodon hispidus littoralis* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 118, June 7, 1889.

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[20] Revised by V. Bailey, Proc. Biol. Soc. Washington, vol. 15, pp. 101–116, June 2, 1902.

Type Locality.—East Peninsula, opposite Micco, Brevard County, Fla. *Range.*—Eastern coastal beaches of Peninsula of Florida, from Point Matanzas, Flagler County (Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, No. 7, p. 192, March 1898), south to Everglades.

Sigmodon hispidus insulicola A. H. Howell*

1943. *Sigmodon hispidus insulicola* A. H. Howell, Proc. Biol. Soc. Washington, vol. 56, p. 74, June 16, 1943.

Type Locality.—Captiva Island, Charlotte [=Lee] County, Fla. *Range.*—Captiva Island, Sanibel Island, Chadwick Beach (near Englewood), and Pine Island, Lee County, southwestern Florida.

Sigmodon hispidus spadicipygus Bangs*

1898. *Sigmodon hispidus spadicipygus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 192, March 1898.

Type Locality.—Cape Sable, Monroe County, Fla. *Range.*—Extreme southern part of Peninsula of Florida.

Sigmodon hispidus exsputus G. M. Allen*

1920. *Sigmodon hispidus exsputus* G. M. Allen, Journ. Mamm., vol. 1, No. 5, p. 236, Dec. 4, 1920.

Type Locality.—Big Pine Key, one of southern Florida Keys, Monroe County, Fla. *Range.*—Known from Big Pine Key only.

Sigmodon hispidus virginianus Gardner†*

1946. *Sigmodon hispidus virginianus* Gardner, Proc. Biol. Soc. Washington, vol. 59, p. 137, Oct. 25, 1946.

Type Locality.—Triplet, Brunswick County, Va. Altitude, 160 feet. *Range.*—Probably southern portions of Mecklinburg and Brunswick Counties in Virginia, in Carolinian province and Carolinian Zone.

Sigmodon hispidus komareki Gardner†*

1948. *Sigmodon hispidus komareki* Gardner, Proc. Biol. Soc. Washington, vol. 61, p. 97, June 16, 1948.

Type Locality.—Woodville, Jackson County, Ala. Altitude, 616 feet. *Range.*—Not completely known but includes most of area above 100 feet altitude in Alabama, southern Tennessee, Georgia, North Carolina, and South Carolina. Zonal range, Carolinian and Austroriparian.

Sigmodon hispidus texianus (Audubon and Bachman)*

1853. *Arvicola texiana* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, p. 229.

1891. *Sigmodon hispidus texianus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 287, June 30, 1891.

Type Locality.—Brazos River, Tex. *Range.*—Approximately eastern half of Texas, westward to Vernon and San Antonio; eastward to western and northwestern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 246, Nov. 22, 1943); northward through eastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 123, July 1939) and Kansas except northern tier of counties (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 186, Aug. 25, 1952).

Sigmodon hispidus alfredi Goldman and Gardner†*

1947. *Sigmodon hispidus alfredi* Goldman and Gardner, Journ. Mamm., vol. 28, No. 1, p. 57, Feb. 17, 1947.

Type Locality.—I. N. Pruitt Farm, near William's Corner, 11 miles north of Springfield, Baca County, Colo. *Range.*—Known from localities in Baca County, southeastern Colorado.

Sigmodon hispidus berlandieri (Baird)†*

1855. *Sigmodon berlandieri* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 333.

1897. *Sigmodon hispidus pallidus* Mearns†, Preliminary diagnoses of new mammals of the genera *Sciurus*, *Castor*, *Neotoma*, and *Sigmodon*, from the Mexican border of the United States, p. 4, Mar. 5, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 504, Jan. 19, 1898. Left bank of Rio Grande, about 6 miles above El Paso, El Paso County, Tex.)

1902. *Sigmodon hispidus berlandieri* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 106, June 2, 1902.

Type Locality.—Río Nazas, Coahuila, México. *Range.*—Central Texas from San Patricio County northward to Roberts County, Rio Grande Valley from Brownsville to El Paso and Pecos River Valley northwest from its junction with Rio Grande (V. Bailey, North Amer. Fauna No. 25, p. 117, Oct. 24, 1905); in southern New Mexico northward in Pecos River Valley to Carlsbad and Roswell, in Tularosa Valley north to Tularosa, in Rio Grande Valley from El Paso to Socorro and westward to near Deming (V. Bailey, N. Amer. Fauna No. 53 (December 1931), p. 166, Mar. 1, 1932); south through Chihuahua, Coahuila, Nuevo León, Tamaulipas, San Luis Potosí, Querétaro, and Zacatecas to southern Jalisco (V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 106, June 2, 1902) and to near Pachuca in southern Hidalgo, México (Davis, Journ. Mamm., vol. 25, No. 4, p. 399, Dec. 12, 1944).

Sigmodon hispidus solus Hall

1951. *Sigmodon hispidus solus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 4, p. 42, Oct. 1, 1951.

Type Locality.—Island, 88 miles south and 10 miles west of Matamoros, Tamaulipas, México. *Range.*—Known only from type locality, but probably occurring on most of chain of islands off coast of Tamaulipas.

Sigmodon hispidus cienegae A. B. Howell*

1919. *Sigmodon hispidus cienegae* A. B. Howell, Proc. Biol. Soc. Washington, vol. 32, p. 161, Sept. 30, 1919.

Type Locality.—Bullock's Ranch, 4 miles east of Fort Lowell, Pima County, Ariz. *Range.*—Southeastern Arizona from vicinity of Tucson southeast to Huachuca Mountains (Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 37, 1937) and Chiricahua Mountains (Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, fig. 1, p. 54, Feb. 9, 1934; see also Benson, Proc. Biol. Soc. Washington, vol. 53, p. 157, Dec. 19, 1940); and north-central Sonora, México, south to Ures and Hermosillo (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 60, Feb. 15, 1938).

Sigmodon hispidus confinis Goldman†*

1918. *Sigmodon hispidus confinis* Goldman, Proc. Biol. Soc. Washington, vol. 31, p. 21, May 16, 1918. (See also, Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, p. 53, Feb. 9, 1934.)

Type Locality.—Safford, Graham County, Ariz. *Range.*—Upper part of Gila River Valley in southeastern Arizona.

Sigmodon hispidus arizonae Mearns*

1890. *Sigmodon hispidus arizonae* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 287, Feb. 21, 1890.

Type Locality.—Fort Verde, Yavapai County, Ariz. *Range.*—A small area in central Arizona north of Gila River. (See Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, fig. 1, p. 54, Feb. 9, 1934.)

Sigmodon hispidus jacksoni Goldman†*

1918. *Sigmodon hispidus jacksoni* Goldman, Proc. Biol. Soc. Washington, vol. 31, p. 22, May 16, 1918.

Type Locality.—Three miles north of Fort Whipple, near Prescott, Yavapai County, Ariz. Altitude, 5,000 feet. *Range.*—Known only from plateau region near Prescott, Ariz.

Sigmodon hispidus plenus Goldman†*

1928. *Sigmodon hispidus plenus* Goldman, Proc. Biol. Soc. Washington, vol. 41, p. 205, Dec. 18, 1928.

Type Locality.—Parker, Yuma County, Ariz. Altitude, 350 feet. *Range.*—Colorado River Valley, above confluence of Colorado and Gila Rivers, as far north as Needles, San Bernardino County, Calif.; and extreme southern Nevada (Hall, Mammals of Nevada, p. 525, July 1, 1946. See also Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, fig. 1, p. 54, Feb. 9, 1934).

Sigmodon hispidus eremicus Mearns†*

1897. *Sigmodon hispidus eremicus* Mearns, Preliminary diagnoses of new mammals of the genera *Sciurus*, *Castor*, *Neotoma*, and *Sigmodon*, from the Mexican border of the United States, p. 4, Mar. 5, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 504, Jan. 19, 1898.)

Type Locality.—Cienega Well, 30 miles south of Mexican boundary monument No. 204 on east bank of Colorado River, Sonora, México. *Range.*—Along east side of Colorado River in western Arizona and extreme northwestern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 61, Feb. 15, 1938); along west side of lower Colorado River, in Imperial County, Calif., south from near Palo Verde to near Pilot Knob, and along irrigation canals extending northward from Colorado delta into Imperial County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 178, Sept. 26, 1933); and southward into northeastern Baja California (Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, fig. 1, p. 54, Feb. 9, 1934).

Sigmodon hispidus toltecus (Saussure)*

1860. [*Hesperomys*] *toltecus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 98.

1902. *Sigmodon hispidus toltecus* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 110, June 2, 1902.

Type Locality.—Mountains of Veracruz, México. *Range.*—Eastern México from Altamira, southern Tamaulipas, to Orizaba, Veracruz.

Sigmodon hispidus baileyi J. A. Allen*

1903. *Sigmodon baileyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 601, Nov. 12, 1903.

1912. *Sigmodon hispidus baileyi* Miller, U. S. Nat. Mus. Bull. 79, p. 183, Dec. 31, 1912.

Type Locality.—La Cienega de las Vacas, northwest Durango, México. Altitude, 8,500 feet. *Range.*—Northwestern Durango.

Sigmodon hispidus major V. Bailey†*

1902. *Sigmodon hispidus major* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 109, June 2, 1902.

Type Locality.—Sierra de Choix, 50 miles [probably only 10 or 15 miles] northeast of Choix, Sinaloa, México. *Range.*—Pacific Coast of México from Nayarit to Guaymas and inland to Tecoripa in southwestern Sonora (Burt., Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 62, Feb. 15, 1939).

Sigmodon hispidus mascotensis J. A. Allen*

1897. *Sigmodon mascotensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 54, Mar. 15, 1897.

1897. *Sigmodon colimae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 55, Mar. 15, 1897. (Plains of Colima, State of Colima, México. See also J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 247, July 25, 1906.)

1902. *Sigmodon hispidus mascotensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 108, June 2, 1902.

Type Locality.—Mineral San Sebastián, Mascota, Jalisco, México. *Range.*—Pacific coast of México from western Jalisco to southern Oaxaca; eastward into Puebla (Hooper, Journ. Mamm., vol. 28, No. 1, p. 54, Feb. 17, 1947).

Sigmodon hispidus inexoratus Elliot*

1903. *Sigmodon hispidus inexoratus* Elliot, Field Columb. Mus. Publ. 71, Zool. Ser., vol. 3, No. 8 (February), p. 144, Mar. 20, 1903.

Type Locality.—Ocotlán, north of Lake Chapala, Jalisco, México. *Range.*—Known from type locality only.

Sigmodon hispidus obvelatus Russell*

1952. *Sigmodon hispidus obvelatus* Russell, Proc. Biol. Soc. Washington, vol. 65, p. 81, Apr. 25, 1952.

Type Locality.—Five miles south of Alpuyeca, Morelos, México. Altitude, 3,700 feet. *Range.*—Known from several localities in eastern and western Morelos; probably occurs in adjacent arid sections of Guerrero and Puebla; limits of range unknown.

Sigmodon hispidus atratus Hall*

1949. *Sigmodon hispiduas* [sic] *atratus* Hall, Proc. Biol. Soc. Washington, vol. 62, p. 149, Aug. 23, 1949. (Regarded as identical with *inexoratus* by Russell, Proc. Bull. Soc. Washington, vol. 65, p. 82, Apr. 25, 1952.)

Type Locality.—Six and one-half miles west of Zamora, Michoacán, México. Altitude, 5,950 feet. *Range.*—Known from Zamora and type locality only.

Sigmodon hispidus tonalensis V. Bailey†*

1902. *Sigmodon hispidus tonalensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 109, June 2, 1902.

Type Locality.—Tonalá, Chiapas, México. *Range.*—Western Chiapas and eastern Oaxaca, México.

Sigmodon hispidus saturatus V. Bailey†*

1902. *Sigmodon hispidus saturatus* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 111, June 2, 1902.

Type Locality.—Teapa, Tabasco, México. *Range.*—Southern Veracruz, Tabasco, and Chiapas (see also, Hooper, Journ. Mamm., vol. 28, No. 1, p. 54, Feb. 17, 1947), México, south to Mountain Pine Ridge, British Honduras (Belice), and Uaxactún in Petén, northeastern Guatemala (A. Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 27, July 15, 1935); western mountain ranges in central tropical region of Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 52, Dec. 12, 1934).

Sigmodon hispidus microdon V. Bailey†*

1902. *Sigmodon hispidus microdon* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 111, June 2, 1902.

Type Locality.—Puerto Morelos, Yucatán, México. *Range.*—Campeche, northern Yucatán, and southeastern Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 21, No. 1, p. 236, Sept. 28, 1950).

Sigmodon hispidus zanjonensis Goodwin*

1932. *Sigmondon zanjonensis* Goodwin, Amer. Mus. Nov., No. 528, p. 1, May 23, 1932.

1934. *Sigmondon hispidus zanjonensis* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 53, Dec. 12, 1934.

Type Locality.—Zanjón, Quezaltenango, southwestern Guatemala. Altitude, 9,000 feet. *Range.*—Highlands of western Guatemala and western and south-central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 168, May 29, 1942). Recorded also from Jaral and Las Ventanas, near northern end of Lake Yojoa, Cortes, northwestern Honduras (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 369, Dec. 15, 1952).

Sigmodon hispidus furvus Bangs*

1903. *Sigmodon hispidus furvus* Bangs, Bull. Mus. Comp. Zool., vol. 39, No. 6, p. 158, July 1903.

1904. *Sigmodon hispidus fervidus* Lydekker, Zool. Record, vol. 40 (1903), Mammals, p. 34. (Accidental renaming of *furvus*.)

Type Locality.—Ceiba [La Ceiba], Atlantida, northern Honduras. *Range.*—Vicinity of type locality northward to Izabel Department in southeastern Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 52, Dec. 12, 1934).

Sigmodon hispidus griseus J. A. Allen

1908. *Sigmodon hispidus griseus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 657, Oct. 13, 1908.

Type Locality.—Lowlands east of Lake Nicaragua, Chontales, Nicaragua. *Range.*—Pacific Coast lowlands of Nicaragua and adjacent parts of Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 168, May 29, 1942).

Sigmodon hispidus borucae J. A. Allen*

1897. *Sigmodon borucae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 40, Mar. 11, 1897.

1902. *Sigmodon hispidus borucae* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 112, June 2, 1902.

Type Locality.—Boruca, near Río Diquís, about 12 miles from Pacific coast, Puntarenas, Costa Rica. Altitude, 1,600 feet. *Range.*—Western Costa Rica at an elevation from sea level to about 3,000 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 406, Dec. 31, 1946. See also Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 13, Oct. 8, 1943).

Sigmodon hispidus austerulus Bangs

1902. *Sigmodon austerulus* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 32, April 1902.

1946. *Sigmodon hispidus austerulus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 407, Dec. 31, 1946.

Type Locality.—Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 10,000 feet. *Range.*—Volcán de Chiriquí, and probably adjacent parts of Costa Rica at high elevations.

Sigmodon hispidus chiriquensis J. A. Allen*

1904. *Sigmodon borucae chiriquensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 68, Feb. 29, 1904.

1912. *Sigmodon hispidus chiriquensis* Miller, Bull. U. S. Nat. Mus., No. 79, p. 184, Dec. 31, 1912.

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—Southwestern Panamá and Canal Zone (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 106, Apr. 26, 1920).

fulviventer—group

Sigmodon fulviventer J. A. Allen*

1889. *Sigmodon fulviventer* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 180, Oct. 21, 1889.

Type Locality.—Zacatecas, Zacatecas, México. *Range.*—Known only from near city of Zacatecas at about 8,000 feet altitude and from Durango, Durango, México.

Sigmodon alleni V. Bailey†*

1902. *Sigmodon alleni* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 112, June 2, 1902. (For status see Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 195, Oct. 26, 1933.)

Type Locality.—San Sebastián, Mascota, Jalisco, México. *Range.*—Western Jalisco and southern Nayarit in western México.

Sigmodon vulcani J. A. Allen

1906. *Sigmodon vulcani* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 247, July 25, 1906.

Type Locality.—Volcán de Fuego, Jalisco, México. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Sigmodon guerrerensis Nelson and Goldman†*

1933. *Sigmodon guerrerensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 196, Oct. 26, 1933.

Type Locality.—Omilteme, Guerrero, México. Altitude, 8,000 feet. *Range.*—Known from type locality only.

Sigmodon melanotis V. Bailey†*

1902. *Sigmodon melanotis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 114, June 2, 1902.

Type Locality.—Pátzcuaro, Michoacán, Mexico. Altitude, 7,000 feet. *Range.*—Central Michoacán (Hall and Villa, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 22, p. 465, Dec. 27, 1949).

Sigmodon minimus minimus Mearns†*

1894. *Sigmodon minima* Mearns, Proc. U. S. Nat. Mus., vol. 17, p. 130, July 19, 1894.

Type Locality.—Near monument No. 40, Hidalgo County, N. Mex., on Mexican boundary, 100 miles west of initial monument on west bank of Rio Grande. Altitude, 1,500 meters. *Range.*—Low mountains and valleys of southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 169, Mar. 1, 1932), southeastern Arizona (Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 37, 1937), northeastern Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 62, Feb. 15, 1938) and northwestern Chihuahua, México.

Sigmodon minimus goldmani V. Bailey†*

1913. *Sigmodon minimus goldmani* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 132, May 21, 1913.

Type Locality.—Seven miles north of Las Palomas (at Hot Springs), Sierra County, N. Mex. (see Gardner, Journ. Mamm., vol. 28, No. 2, p. 190, June 1, 1947). Altitude, 4,200 feet. *Range.*—Known from type locality only.

Sigmodon minimus woodi Gardner†*

1948. *Sigmodon minimus woodi* Gardner, Journ. Mamm., vol. 29, No. 1, p. 65, Feb. 13, 1948.

Type Locality.—East side of Rio Grande, 51 miles south of Albuquerque (near Bernardo), Socorro County, N. Mex. Altitude, 5,000 feet. *Range.*—Known from type locality only.

Sigmodon ochrognathus ochrognathus V. Bailey†*

1902. *Sigmodon ochrognathus* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 115, June 2, 1902.

Type Locality.—Chisos Mountains, Brewster County, Tex. Altitude, 8,000 feet. *Range.*—Big Bend region of Rio Grande in Texas and Coahuila, México (Goldman and Gardner, Journ. Mamm., vol. 28, No. 1, p. 58, Feb. 17, 1947. See also Blair, Univ. Michigan Mus. Zool. Misc. Publ. 46, p. 32, June 28, 1940; and Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 34, Aug. 7, 1942).

Sigmodon ochrognathus montanus Benson*

1940. *Sigmodon ochrognathus montanus* Benson, Proc. Biol. Soc. Washington, vol. 53, p. 157, Dec. 19, 1940.

Type Locality.—Peterson's Ranch ("Sylvania"), Huachuca Mountains, 2 miles north of Sunnyside, Cochise County, Ariz. Altitude, 6,100 feet. *Range.*—Known only from Huachuca Mountains in southeastern Arizona and Animas Valley in southwestern New Mexico, but probably also occurring in suitable habitats in adjacent area.

Sigmodon ochrognathus madrensis Goldman and Gardner†*

1947. *Sigmodon ochrognathus madrensis* Goldman and Gardner, Journ. Mamm., vol. 28, No. 1, p. 58, Feb. 17, 1947.

Type Locality.—Foothills of Sierra Madre, about 30 miles northwest of Parral, southern Chihuahua, México. Altitude, 6,200 feet. *Range.*—Known only from type locality in eastern foothills of Sierra Madre, southern Chihuahua, but may have an extensive range in neighboring mountains of Sierra Madre Occidental biotic province. Zonal range, Upper Austral.

Sigmodon leucotis V. Bailey†*

1902. *Sigmodon leucotis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 115, June 2, 1902.

Type Locality.—Sierra de Valparaiso, Zacatecas, México. Altitude, 8,700 feet. *Range.*—Sierra Madre of Durango and Zacatecas (Goldman and Gardner, Journ. Mamm., vol. 28, No. 1, p. 59, Feb. 17, 1947).

Sigmodon alticola alticola V. Bailey†*

1902. *Sigmodon alticola* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 116, June 2, 1902.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Mountains of Oaxaca.

Sigmodon alticola amoles V. Bailey†*

1902. *Sigmodon alticola amoles* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 116, June 2, 1902.

Type Locality.—Pinal de Amoles, Querétaro, México. Altitude, 7,000 feet. *Range.*—Known from type locality only.

Sigmodon planifrons Nelson and Goldman†*

1933. *Sigmodon planifrons* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 46, p. 197, Oct. 26, 1933.

Type Locality.—Juquila, southwestern Oaxaca, México. Altitude, 5,000 feet. *Range.*—Known from type locality only.

Genus NEOTOMODON[21] Merriam

1898. *Neotomodon* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 127, Apr. 30, 1898. (Type, *Neotomodon alstoni* Merriam.)

Neotomodon alstoni alstoni Merriam†*

1898. *Neotomodon alstoni* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 128, Apr. 30, 1898.

1944. *Neotomodon alstoni alstoni* Davis, Journ. Mamm., vol. 25, No. 4, p. 398, Dec. 12, 1944.

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[21] For relationships, see Davis and Follansbee, Journ. Mamm., vol. 26, No. 4, pp. 405–407, Feb. 12, 1945.

Type Locality.—Nahuatzen, Michoacán, México. Altitude, 8,500 feet. *Range.*—High mountains of central México west of Río Balsas (Davis and Follansbee, Journ. Mamm., vol. 26, No. 4, p. 411, Feb. 12, 1945), from Río Otlati in Puebla (Davis, loc. cit.) and Distrito Federal (Hooper, Journ. Mamm., vol. 28, No. 1, p. 55, Feb. 17, 1947), westward into Michoacán.

Neotomodon alstoni perotensis Merriam†*

1898. *Neotomodon perotensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 129, Apr. 30, 1898.

1898. *Neotomodon orizabae* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 129, Apr. 30, 1898. (Volcán de Orizaba, Puebla, México; altitude, 9,500 feet. Regarded as identical with *perotensis* by Davis and Follansbee, Journ. Mamm., vol. 26, No. 4, pp. 407–411, Feb. 12, 1945).

1944. *Neotomodon alstoni perotensis* Davis, Journ. Mamm., vol. 25, No. 4, p. 398, Dec. 12, 1944.

Type Locality.—Cofre de Perote, Veracruz, México. Altitude, 9,500 feet. *Range.*—East of Río Balsas in Perote–Orizaba region in Veracruz and Puebla (Davis and Follansbee, op. cit., p. 411.).

Genus NEOTOMA[22] Say and Ord (wood-rats)

1825. *Neotoma* Say and Ord, Journ. Acad. Nat. Sci. Philadelphia, vol. 4, pt. 2, p. 345. (Type, *Mus floridanus* Ord.)

Subgenus NEOTOMA Say and Ord

floridana—group

Neotoma floridana floridana (Ord)*

1818. *Mus floridanus* Ord, Bull. Soc. Philom. Paris, p. 181, December 1818.

1825. *N[eotoma] floridana* Say and Ord, Journ. Acad. Nat. Sci. Philadelphia, vol. 4, pt. 2, p. 346.

1884. *Neotoma floridana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

Type Locality.—St. Johns River, Fla.; probably near Jacksonville, Duval County (See Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 184, March 1898). *Range.*—Atlantic coast region from South Carolina to Sebastian, Fla.; and westward through greater part of Alabama from Tennessee River Valley southward (A. H. Howell, North Amer. Fauna No. 45, p. 52, Oct. 28, 1921).

Neotoma floridana haematoreia A. H. Howell*

1934. *Neotoma floridana haematoreia* A. H. Howell, Proc. Acad. Nat. Sci. Philadelphia, vol. 86, p. 403, Oct. 15, 1934.

Type Locality.—Near summit of Blood Mountain, Lumpkin County, Ga. Altitude, 4,400 feet. *Range.*—Recorded also at Highlands, Macon County, N. C.; eastern Great Smoky Mountains, 3 miles above Townsend, on Little River, Blount County, Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 282, Feb. 14, 1939); and near Caesar's Head Hotel, Geer Highway, Greenville County, S. C. (Coleman, Journ. Mamm., vol. 30, No. 2, p. 200, May 23, 1949).

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[22] Revised by Goldman, North Amer. Fauna No. 31, Oct. 19, 1910; and in part rearranged by Goldman, Journ. Mamm., vol. 13, No. 1, pp. 59–67, Feb. 10, 1932.

Neotoma floridana rubida Bangs*

1898. *Neotoma floridana rubida* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 185, Mar. 1898.

Type Locality.—Gibson, Terrebonne Parish, La. *Range.*—Lower Mississippi Valley and Gulf coast, from southern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 246, Nov. 22, 1943) to eastern Texas.

Neotoma floridana illinoensis A. H. Howell†*

1910. *Neotoma floridana illinoensis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 23, p. 28, Mar. 23, 1910.

Type Locality.—Wolf Lake, Union County, Ill. *Range.*—Swamp region of southern Illinois, and southward to northern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 246, Nov. 22, 1943), Texarkana in Texas, and Washington in Mississippi (Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 236, Apr. 10, 1952).

Neotoma floridana baileyi Merriam†*

1894. *Neotoma baileyi* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 123, July 2, 1894.

1905. *Neotoma floridana baileyi* V. Bailey, North Amer. Fauna No. 25, p. 109, Oct. 24, 1905.

Type Locality.—Valentine, Cherry County, Neb. *Range.*—From southwestern South Dakota to wooded hillsides along Republican River and its tributaries in northeastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 80, September 1944); west to Pueblo, Colo.

Neotoma floridana campestris J. A. Allen*

1894. *Neotoma campestris* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 322, Nov. 7, 1894.

1914. *Neotoma floridana campestris* R. Kellogg, Kansas Univ. Mus. Nat. Hist. Publ. 1, Zool. Ser., vol. 1, No. 1, p. 5, Jan. 30, 1914.

Type Locality.—Pendennis, Lane County, Kan. *Range.*—Chalk cliffs along Smoky Hill River and its tributaries in western Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 80, September 1944) and eastern Colorado.

Neotoma floridana osagensis Blair*

1939. *Neotoma floridana osagensis* Blair, Occ. Pap. Mus. Zool. Univ. Michigan No. 403, p. 5, June 16, 1939.

Type Locality.—Okesa, Osage County, Okla. *Range.*—Eastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 81, September 1944); eastern Oklahoma west to Dewey County; southward at least to Hunt County in northeastern Texas (Baker, Journ. Mamm., vol. 23, No. 3, p. 343, Aug. 14, 1942); eastward to northwestern Arkansas and to Ozark County in southern Missouri (Leopold and Hall, Journ. Mamm., vol. 26, No. 2, p. 145, July 19, 1945). (See also Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 236, Apr. 10, 1952.)

Neotoma floridana attwateri Mearns*

1897. *Neotoma attwateri* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 721, July 30, 1897.

1901. [*Neotoma floridana*] *attwateri* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 157, Mar. 6, 1901.

Type Locality.—Lacey's Ranch, Turtle Creek, Kerr County, Tex. *Range.*—Mainly Lower Sonoran Zone in central Texas.

Neotoma micropus micropus Baird†*

1855. *Neotoma micropus* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 333, April 1855.

1891. *Neotoma micropus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 282, June 30, 1891.

1899. *Neotoma macropus* [sic] *surberi* Elliot, Field Columb. Mus. Publ. 37, Zool. Ser., vol. 1, No. 14 (May 9), p. 279, May 15, 1899. (Three miles west of Alva, Woods County, Okla.)

Type Locality.—Charco Escondido, Tamaulipas, México. *Range.*—From Barber, Comanche, and Clark Counties in south-central Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 81, September 1944) south through western Oklahoma, central Texas, eastern Coahuila, and Nuevo León to southern Tamaulipas.

Neotoma micropus canescens J. A. Allen*

1891. *Neotoma micropus canescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 285, June 30, 1891.

Type Locality.—North Beaver Creek [=North Canadian River], Cimarron County, Okla. *Range.*—From southwestern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 81, September 1944), southeastern Colorado, and northwestern Oklahoma southward through western Texas to southern Coahuila; west in New Mexico to Rio Grande Valley (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 171, Mar. 1, 1932).

Neotoma micropus leucophaea Goldman†*

1933. *Neotoma micropus leucophaea* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 472, Oct. 15, 1933.

Type Locality.—White Sands, 10 miles west of Point of Sands, White Sands National Monument, Otero County, N. Mex. Altitude, 4,100 feet. *Range.*—Dunes of whitish drifted sands in vicinity of type locality.

Neotoma micropus littoralis Goldman†*

1905. *Neotoma micropus littoralis* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 31, Feb. 2, 1905.

Type Locality.—Altamira, Tamaulipas, México. Altitude, 100 feet. *Range.*—Arid Tropical Zone in southern Tamaulipas.

Neotoma micropus planiceps Goldman†*

1905. *Neotoma micropus planiceps* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 32, Feb. 2, 1905.

Type Locality.—Río Verde, San Luis Potosí, México. Altitude, 3,000 feet. *Range.*—Plains of southern San Luis Potosí. Zonal range, Lower Sonoran.

albigula—group

Neotoma albigula albigula Hartley*

1894. *Neotoma albigula* Hartley, Proc. California Acad. Sci., ser. 2, vol. 4, p. 157, May 9, 1894.

1894. *Neotoma intermedia angusticeps* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 127, July 2, 1894. (Southwest corner of Hidalgo County, N. Mex.)

Type Locality.—Vicinity of Fort Lowell, near Tucson, Pima County, Ariz. *Range.*—Northern New Mexico southward through southwestern Texas (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, p. 36, Aug. 7, 1942) and Chihuahua to southern Coahuila, México, and from central Texas to western Arizona (Pima County; see Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 32, p. 362, Feb. 17, 1942); and southward in Sonora to Hermosillo.

Neotoma albigula venusta True†*

1894. *Neotoma venusta* True, Diagnoses of some undescribed wood rats (genus *Neotoma*) in the National Museum, p. 2, June 27, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 354, Nov. 15, 1894.)

1897. *Neotoma cumulator* Mearns†, Preliminary diagnoses of new mammals of the genera *Sciurus*, *Castor*, *Neotoma*, and *Sigmodon*, from the Mexican border of the United States, p. 3, Mar. 5, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 503, Jan. 19, 1898.) (Old Fort Yuma, Imperial County, Calif., on right bank of Colorado River opposite present town of Yuma, Ariz.)

1904. *Neotoma desertorum grandis* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 247, Jan. 7, 1904. (Cameron Lake, Kern County, Calif.)

1910. *Neotoma albigula venusta* Goldman, North Amer. Fauna No. 31, p. 33, Oct. 19, 1910.

Type Locality.—Carrizo Creek, Imperial County, Calif. *Range.*—Colorado River Valley from northwestern Arizona southward to Gulf of California and into northeastern Baja California; a narrow strip along gulf coast of Sonora to Costa Rica ranch (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 64, Sept. 26, 1933); and bed of Colorado Desert, from Mexican line northwest at least to Mecca, Riverside County, west to Carrizo Creek, in extreme eastern San Diego County, and north along Colorado at least to near Riverside Mountain, northeastern Riverside County, Calif.; vertical range, 200 feet below sea level near Mecca up to not more than 350 feet above sea level; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 178, Sept. 26, 1933).

Neotoma albigula brevicauda Durrant

1934. *Neotoma albigula brevicauda* Durrant, Journ. Mamm., vol. 15, No. 1, p. 65, Feb. 16, 1934.

Type Locality.—Castle Valley, about 15 miles northeast of Moab, Grand County, Utah. *Range.*—Known from type locality only.

Neotoma albigula laplataensis F. W. Miller

1933. *Neotoma albigula laplataensis* F. W. Miller, Proc. Colorado Mus. Nat. Hist., vol. 12, p. 2, July 22, 1933.

Type Locality.—Near Bondad, La Plata County, Colo. *Range.*—Mancos-San Juan River region in Montezuma and La Plata Counties, southwestern Colorado; and San Juan County, southeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 89, Feb. 15, 1951).

Neotoma albigula warreni Merriam†*

1908. *Neotoma albigula warreni* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 143, June 9, 1908.

Type Locality.—Gaume Ranch, Baca County (northwest corner), Colo. Altitude, 4,600 feet. *Range.*—Plains region of southeastern Colorado, northeastern New Mexico; and northwestern corner of Oklahoma Panhandle (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 125, July 1939).

Neotoma albigula robusta Blair*

1939. *Neotoma albigula robusta* Blair, Occ. Pap. Mus. Zool. Univ. Michigan No. 403, p. 3, June 16, 1939.

Type Locality.—Limpia Canyon, 16 miles north of Fort Davis, Jeff Davis County, Tex. Altitude, 4,300 feet. *Range.*—Davis Mountains of southwestern Texas.

Neotoma albigula melas Dice*

1929. *Neotoma albigula melas* Dice, Occ. Pap. Mus. Zool. Univ. Michigan No. 203, p. 3, June 19, 1929.

Type Locality.—Malpais Spring, malpais lava beds near Carrizozo, Lincoln County, N. Mex. *Range.*—Malpais lava beds west of Carrizozo, Lincoln County.

Neotoma albigula mearnsi Goldman†*

1915. *Neotoma albigula mearnsi* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 135, June 29, 1915.

Type Locality.—Tinajas Altas, Gila Mountains, Yuma County, Ariz. *Range.*—Probably the extremely arid desert area extending from near type locality southward along eastern side of Gulf of California.

Neotoma albigula sheldoni Goldman†*

1915. *Neotoma albigula sheldoni* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 136, June 29, 1915.

Type Locality.—Sierra Pinacate (Papago Tanks), Sonora, México. *Range.*—Sierra Pinacate region east to Sáric, Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 63, Feb. 15, 1938).

Neotoma albigula seri Townsend†*

1912. *Neotoma albigula seri* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 125, June 14, 1912.

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Tiburón Island.

Neotoma albigula melanura Merriam†*

1894. *Neotoma intermedia melanura* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 126, July 2, 1894.

1905. *N[eotoma] a[lbigula] melanura* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 29, Feb. 2, 1905.

Type Locality.—Ortiz, Sonora, México. *Range.*—Western basal slopes of Sierra Madre in southern Sonora and southwestern Chihuahua. Zonal range, Lower Sonoran and upper part of Arid Tropical.

Neotoma albigula leucodon Merriam†*

1894. *Neotoma leucodon* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 120, July 2, 1894.

1910. *Neotoma albigula leucodon* Goldman, North Amer. Fauna No. 31, p. 36, Oct. 19, 1910.

Type Locality.—San Luis Potosí, San Luis Potosí, México. *Range.*—Mexican Plateau region from western Nuevo León (Ojo de Agua; Koestner, Great Basin Naturalist, vol. 2, No. 1, p. 13, Feb. 20, 1941) south to northern part of State of México. Zonal range, Upper and Lower Sonoran.

Neotoma albigula durangae J. A. Allen*

1903. *Neotoma intermedia durangae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 602, Nov. 12, 1903.

1910. *Neotoma albigula durangae* Goldman, North Amer. Fauna No. 31, p. 37, Oct. 19, 1910.

Type Locality.—San Gabriel, northwestern Durango, México. *Range.*—Eastern basal slopes of Sierra Madre west of and above range of *albigula*, from central Durango to southwestern Chihuahua, México. Zonal range, Upper Sonoran.

Neotoma albigula zacatecae Goldman†*

1905. *Neotoma leucodon zacatecae* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 30, Feb. 2, 1905.

1910. *Neutoma albigula zacatecae* Goldman, North Amer. Fauna No. 31, p. 38, Oct. 19, 1910.

Type Locality.—Plateado, Zacatecas, México. Altitude, 7,600 feet. *Range.*—Sierra Madre in western Zacatecas. Zonal range, Transition.

Neotoma latifrons Merriam†*

1894. *Neotoma latifrons* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 121, July 2, 1894.

Type Locality.—Queréndaro, Michoacán, México. *Range.*—Known from type locality only. Zonal range, lower part of Lower Sonoran.

Neotoma nelsoni Goldman†*

1905. *Neotoma nelsoni* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 29, Feb. 2, 1905.

Type Locality.—Perote, Veracruz, México. Altitude, 7,800 feet. *Range.*—High plains along eastern edge of Mexican Plateau region in eastern Puebla and extreme west-central Veracruz. Zonal range, Upper Sonoran.

Neotoma palatina Goldman†*

1905. *Neotoma palatina* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 27, Feb. 2, 1905.

Type Locality.—Bolaños, Jalisco, México. Altitude, 2,800 feet. *Range.*—Known only from type locality in canyon of Bolaños River. Zonal range, Arid Tropical.

Neotoma montezumae Goldman†*

1905. *Neotoma montezumae* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 29, Feb. 2, 1905.

Type Locality.—Zimapán, Hidalgo, México. Altitude, 7,500 feet. *Range.*—Known only from type locality on high plains of western Hidalgo. Zonal range, Upper Sonoran.

Neotoma varia Burt

1932. *Neotoma varia* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 178, Oct. 31, 1932.

Type Locality.—Turner Island, lat. 28°43′ N., long. 112°19′ W., Gulf of California, Sonora, México. *Range.*—Turner Island.

lepida—group [23]

Neotoma lepida lepida Thomas*

1893. *Neotoma lepida* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 12, p. 235, September 1893.

1894. *Neotoma desertorum* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 125, July 2, 1894. (Furnace Creek, Death Valley, Inyo County, Calif.)

1899. *Neotoma bella* Bangs, Proc. New England Zool. Club, vol. 1, p. 66, July 31, 1899. (Palm Springs, Riverside County, Calif. For discussion of status see Goldman, Journ. Mamm., vol. 13, No. 1, p. 62, Feb. 9, 1932.)

Type Locality.—Somewhere on "Simpson's route" between Camp Floyd (a few miles west of Utah Lake), Utah, and Carson City, Nev. (see Goldman, op. cit., p. 61). *Range.*—Colorado and Mohave Deserts in California from north base of San Jacinto Mountains (near Whitewater) in Riverside County, Antelope Valley (near Fairmont) in northern Los Angeles County, and into Walker Pass in Kern County, eastward to Colorado River and northward through Inyo region to head of Owens Valley (near Benton) in Mono County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 179, Sept. 26, 1933), through northwestern Arizona, most of Nevada, except southern Clark, northern Washoe and Humboldt, and western and central Elko Counties (Hall, Mammals of Nevada, p. 531, July 1, 1946) and western Utah in area formerly occupied by Pleistocene Lake Bonneville as well as west of Beaverdam Mountains in Washington County (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 337, Aug. 10, 1952).

Neotoma lepida sanrafaeli Kelson

1949. *Neotoma lepida sanrafaeli* Kelson, Journ. Washington Acad. Sci., vol. 30, No. 12, p. 418, Dec. 22, 1949.

Type Locality.—Rock Canyon Corral, 5 miles southeast of Valley City, Grand County, Utah. Altitude, 4,500 feet. *Range.*—Eastern Utah between Colorado River and High Plateaus, north to Book Cliffs, south to northern Garfield County.

Neotoma lepida marshalli Goldman†*

1939. *Neotoma lepida marshalli* Goldman, Journ. Mamm., vol. 20, No. 3, p. 357, Aug. 14, 1939.

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[23] The *desertorum* and *intermedia* groups of Goldman, North Amer. Fauna No. 31, pp. 14–15, Oct. 7, 1909. Revised by Goldman, Journ. Mamm., vol. 13, No. 1, pp. 59–67, Feb. 9, 1932.

Type Locality.—Carrington Island, Great Salt Lake, Tooele County, Utah. Altitude, about 4,250 feet. *Range.*—Known from Carrington and Stansbury Islands.

Neotoma lepida nevadensis Taylor*

1910. *Neotoma nevadensis* Taylor, Univ. California Publ. Zool., vol. 5, No. 6, p. 289, Feb. 12, 1910. (For discussion of status see Goldman, Journ. Mamm., vol. 13, No. 1, p. 62, Feb. 9, 1932.)

1946. *Neotoma lepida nevadensis* Hall, Mammals of Nevada, p. 530, July 1, 1946.

Type Locality.—Virgin Valley, Humboldt County, Nev. Altitude, 4,800 feet. *Range.*—Northwestern Nevada (Hall, loc. cit.), northeastern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 179, Sept. 26, 1933), eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 176, Aug. 29, 1936), and parts of Idaho.

Neotoma lepida monstrabilis Goldman†*

1932. *Neotoma lepida monstrabilis* Goldman, Journ. Mamm., vol. 13, No. 1, p. 62, Feb. 9, 1932.

Type Locality.—Ryan, Kaibab National Forest, Coconino County, Ariz. Altitude, 6,000 feet. *Range.*—Southwestern Utah west of Colorado River and south of Water Pocket Flexure (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 90, Feb. 15, 1951) and northwestern Arizona west of Colorado River.

Neotoma lepida devia Goldman†*

1927. *Neotoma intermedia devia* Goldman, Proc. Biol. Soc. Washington, vol. 40, p. 205, Dec. 2, 1927.

1932. *Neotoma lepida devia* Goldman, Journ. Mamm., vol. 13, No. 1, p. 62, Feb. 9, 1932.

Type Locality.—Tanner Tank, Painted Desert, Coconino County, Ariz. Altitude, 5,200 feet. *Range.*—Known only from a narrow strip along eastern side of Colorado River extending from points in Painted Desert south through Grand Canyon to Parker, western Arizona.

Neotoma lepida harteri Huey

1937. *Neotoma lepida harteri* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 351, June 15, 1937.

Type Locality.—Ten miles south of Gila Bend (summits of lava hills on east side of Ajo railroad, about two miles north of Black Gap), Maricopa County, Ariz. *Range.*—Hills south of Gila Bend; south to near Growler Mine, Pima County, Ariz. (Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 32, p. 362, Feb. 17, 1942).

Neotoma lepida auripila Blossom*

1933. *Neotoma auripila* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan, No. 273, p. 1, Oct. 31, 1933.

1935. *N*[*eotoma*] *l*[*epida*] *auripila* Blossom. Occ. Pap. Mus. Zool. Univ. Michigan No. 315, p. 1, May 29, 1935.

Type Locality.—Agua Dulce Mountains, 9 miles east of Papago Well, Pima County, Ariz. *Range.*—Known only from type locality and from Crow Butte, Yuma County, Ariz.

Neotoma lepida flava Benson

1935. *Neotoma lepida flava* Benson, Occ. Pap. Mus. Zool. Univ. Michigan No. 317, p. 7, July 1, 1935.

Type Locality.—Tinajas Altas, Yuma County, Ariz. Altitude, 1,150 feet. *Range.*—Known from type locality only. Probably restricted to southern end of Tinajas Altas Mountains.

Neotoma lepida bensoni Blossom

1935. *Neotoma lepida bensoni* Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 315, p. 1, May 29, 1935.

Type Locality.—Papago Tanks, Sierra Pinacate, Sonora, México. *Range.*—Known only from nearly black lava of Sierra Pinacate in Sonora, but doubtless occurs also on Pinacate lava plain, which extends from these mountains northward into Yuma County, Ariz.

Neotoma lepida aureotunicata Huey

1937. *Neotoma lepida aureotunicata* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 349, June 15, 1937.

Type Locality.—Punta Peñascosa, Sonora, México. *Range.*—Known from type locality only.

Neotoma lepida grinnelli Hall

1942. *Neotoma lepida grinnelli* Hall, Univ. California Publ. Zool., vol. 46, No. 5, p. 369, July 3, 1942.

Type Locality.—Colorado River 20 miles above (by river; about 12½ airline miles north) Picacho, Imperial County, Calif. *Range.*—Colorado River Valley from southern Clark County, Nev., south to Mexican boundary and west in Colorado Desert to Beal Well.

Neotoma lepida gilva Rhoads*

1894. *Neotoma intermedia gilva* Rhoads, Amer. Nat., vol. 28, p. 70, January 1894.

1894. *Neotoma desertorum sola* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 126, July 2, 1894. (San Emigdio, Kern County, Calif.)

1932. *Neotoma lepida gilva* Goldman, Journ. Mamm., vol. 13, No. 1, p. 63, Feb. 9, 1932.

Type Locality.—Banning, Riverside County, Calif. *Range.*—Occurs irregularly along eastern edge of main range of *intermedia*, where conditions become more arid, approaching those of deserts proper; recorded from Stanley, western Fresno County, southeast, mostly along east-facing slopes of innermost Coast Ranges to near Mountain Spring, extreme eastern San Diego County; east from Mount Pinos, Ventura County, through Tehachapi region to valley of South Fork of Kern River, in Kern County; vertical range from 600 feet (Wheeler Ridge, Kern County) up to 8,500 feet (Mount Pinos); zonal range, Lower and Upper Sonoran, locally Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 180, Sept. 26, 1933); south at least to Gaskill's Tank, near Laguna Salada, northeastern Baja California (Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 16, p. 310, Aug. 31, 1945).

Neotoma lepida californica Price*

1894. *Neotoma californica* Price, Proc. California Acad. Sci., ser. 2, vol. 4, p. 154, pl. 11, May 9, 1894. (Regarded by Goldman, Journ. Mamm., vol. 13, No. 1, p. 64, Feb. 10, 1932, as identical with *intermedia.*)

1938. *Neotoma lepida californica* von Bloeker, Proc. Biol. Soc. Washington, vol. 51, p. 201, Dec. 23, 1938.

Type Locality.—Bear Valley, San Benito County, Calif. *Range.*—Inner Coast Range from Mount Hamilton, Santa Clara County, east to Herrero Canyon, Merced County, and south through Gabilan–Diablo Range at least to Lewis Creek, Monterey County. Vertical range, from 200 feet to 4,000 feet. (See also Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 237, Apr. 10, 1952.)

Neotoma lepida petricola von Bloeker*

1938. *Neotoma lepida petricola,* von Bloeker, Proc. Biol. Soc. Washington, vol. 51, p. 203, Dec. 23, 1938.

Type Locality.—Abbotts Ranch, Arroyo Seco, Monterey County, Calif. Altitude, 670 feet. *Range.*—Santa Lucia mountains and Sierra de Salinas, Monterey County, Calif., from Big Pines south at least to Mount Mars. Vertical range, from 600 to 5,000 feet.

Neotoma lepida intermedia Rhoads*

1894. *Neotoma intermedia* Rhoads, Amer. Nat., vol. 28, p. 69, January 1894.

1932. *Neotoma lepida intermedia* Goldman, Journ. Mamm., vol. 13, No. 1, p. 64, Feb. 10, 1932.

Type Locality.—Dulzura, San Diego County, Calif. *Range.*—Northwestern Baja California north to near Lewis Creek and Mount Mars, Monterey County; easternmost station at north, Sweeney's Hill, Merced County; easternmost station at south, Julian, San Diego County; also recorded along western foothills of extreme southern Sierra Nevada, in Tulare County, north to near Porterville; vertical range, from close to sea level up to at least 5,000 feet; zonal range, Upper Sonoran, locally Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 180, Sept. 26, 1933).

Neotoma lepida felipensis Elliot*

1903. *Neotoma bella felipensis* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, No. 12 (June), p. 217, Aug. 15, 1903.

1932. *Neotoma lepida felipensis* Goldman, Journ. Mamm., vol. 13, No. 1, p. 64, Feb. 9, 1932.

Type Locality.—San Felipe, Baja California, México. *Range.*—Desert region, east of Sierra San Pedro Mártir, in northeastern Baja California.

Neotoma lepida egressa Orr*

1934. *Neotoma lepida egressa* Orr, Proc. Biol. Soc. Washington, vol. 47, p. 109, June 13, 1934.

Type Locality.—El Rosario (one mile east of), Baja California, México. Altitude, 200 feet. *Range.*—Coastal region of northwestern Baja California from lat. 31° N. south at least to El Rosario, lat. 30°03′ N.

Neotoma lepida molagrandis Huey*

1945. *Neotoma lepida molagrandis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 10, No. 16, p. 307, Aug. 31, 1945.

Type Locality.—Santo Domingo Landing (more precisely, at site of old well near edge of mesalike shelf, some 3 miles inland from landing beach), lat. 28°15′ N., Baja California, México. Altitude, about 50 feet. *Range.*—So far as known, northern and western coastal section of Vizcaíno Desert region of Baja California.

Neotoma lepida ravida Nelson and Goldman†*

1931. *Neotoma intermedia ravida* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 107, Oct. 17, 1931.

1932. *Neotoma lepida ravida* Goldman, Journ. Mamm., vol. 13, No. 1, p. 64, Feb. 9, 1932.

Type Locality.—Comondú, southern Baja California, México. Altitude, 700 feet. *Range.*—Volcanic region, including extensive lava beds, along backbone of Peninsula of Baja California from about lat. 28° N. south to Sierra de la Giganta.

Neotoma lepida pretiosa Goldman†*

1909. *Neotoma intermedia pretiosa* Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 139, June 25, 1909.

1932. *Neotoma lepida pretiosa* Goldman, Journ. Mamm., vol. 13, No. 1, p. 64, Feb. 9, 1932.

Type Locality.—Matancita (also called Soledad), 50 miles north of Magdalena Bay, Baja California, México. Altitude, 100 feet. *Range.*—West coast and islands of Baja California, from San Jorge (southwest of Comondú) south to Margarita Island.

Neotoma lepida notia Nelson and Goldman†*

1931. *Neotoma intermedia notia* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 108, Oct. 17, 1931.

1932. *Neotoma lepida notia* Goldman, Journ. Mamm., vol. 13, No. 1, p. 65, Feb. 9, 1932.

Type Locality.—La Laguna, Sierra de la Victoria, southern Baja California, México. Altitude, 5,000 feet. *Range.*—Known only from mountains of Cape region of Baja California.

Neotoma lepida arenacea J. A. Allen*

1898. *Neotoma arenacea* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 150, Apr. 12, 1898.

1932. *Neotoma lepida arenacea* Goldman, Journ. Mamm., vol. 13, No. 1, p. 65, Feb. 9, 1932.

Type Locality.—San José del Cabo, Baja California, México. *Range.*—Coastal plains and basal mountain slopes in Cape region of Baja California, north at least to La Paz.

Neotoma lepida vicina Goldman†*

1909. *Neotoma intermedia vicina* Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 140, June 25, 1909.

1932. *Neotoma lepida vicina* Goldman, Journ. Mamm., vol. 13, No. 1, p. 65, Feb. 9, 1932.

Type Locality.—Espíritu Santo Island, Gulf of California, Baja California, México. *Range.*—Espíritu Santo Island.

Neotoma lepida abbreviata Goldman*

1909. *Neotoma abbreviata* Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 140, June 25, 1909.

1932. *Neotoma lepida abbreviata* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 182, Oct. 31, 1932.

Type Locality.—San Francisco Island (near southern end of San José Island), Gulf of California, Baja California, México. *Range.*—San Francisco Island.

Neotoma lepida perpallida Goldman†*

1909. *Neotoma intermedia perpallida* Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 139, June 25, 1909.

1932. *Neotoma lepida perpallida* Goldman, Journ. Mamm., vol. 13, No. 1, p. 65, Feb. 9, 1932.

Type Locality.—San José Island, Gulf of California, Baja California, México. *Range.*—San José Island.

Neotoma lepida latirostra Burt

1932. *Neotoma lepida latirostra* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 180, Oct. 31, 1932.

Type Locality.—Danzante Island, lat. 25°47′ N., long. 111°11′ W., Gulf of California, Baja California, México. *Range.*—Danzante Island.

Neotoma lepida nudicauda Goldman†*

1905. *Neotoma nudicauda* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 28, Feb. 2, 1905.

1932. *Neotoma lepida nudicauda* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 182, Oct. 31, 1932.

Type Locality.—Carmen Island, Gulf of California, Baja California, México. *Range.*—Carmen Island.

Neotoma lepida marcosensis Burt

1932. *Neotoma lepida marcosensis* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 179, Oct. 31, 1932.

Type Locality.—San Marcos Island, lat. 27°13′ N., long. 112°05′ W., Gulf of California, Baja California, México. *Range.*—San Marcos Island.

Neotoma lepida insularis Townsend†*

1912. *Neotoma insularis* Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 125, June 14, 1912.

1932. *Neotoma lepida insularis* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 182, Oct. 31, 1932.—Burt and Barkalow, Journ. Mamm., vol. 23, No. 3, p. 290, Aug. 14, 1942.

Type Locality.—Angel de la Guarda Island, Gulf of California, Baja California, México. *Range.*—Angel de la Guarda Island.

Neotoma bryanti Merriam†*

1887. *Neotoma bryanti* Merriam, Amer. Nat., vol. 21, No. 2, p. 191, February 1887.

Type Locality.—"Cerros" [=Cedros] Island, Baja California, México. *Range.*—Cedros Island, off west coast of Baja California.

Neotoma anthonyi J. A. Allen*

1898. *Neotoma anthonyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 151, Apr. 12, 1898.

Type Locality.—Todos Santos Island, off west coast of Baja California, México. *Range.*—Todos Santos Island.

Neotoma martinensis Goldman†*

1905. *Neotoma martinensis* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 28, Feb. 2, 1905.

Type Locality.—San Martín Island, Baja California, México. *Range.*—San Martín Island.

Neotoma bunkeri Burt

1932. *Neotoma bunkeri* Burt, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 16, p. 181, Oct. 31, 1932.

Type Locality.—Coronados Island, lat. 26°06′ N., long. 111°18′ W., Gulf of California, Baja California, México. *Range.*—Coronados Island.

Neotoma stephensi stephensi Goldman†*

1905. *Neotoma stephensi* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 32, Feb. 2, 1905.

1932. *Neotoma stephensi stephensi* Goldman, Journ. Mamm., vol. 13, No. 1, p. 66, Feb. 9, 1932.

Type Locality.—Hualpai Mountains, Mohave County, Ariz. Altitude, 6,300 feet. *Range.*—From Harquahala and Hualpai Mountains in western Arizona, south to Pinal Mountains, Gila County (Doutt, Ann. Carnegie Mus., vol. 23, p. 266, Aug. 4, 1934), and eastward along slopes of Mogollon Plateau to Burro and Zuni Mountains in western New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 188, Mar. 1, 1932).

Neotoma stephensi relicta Goldman†*

1932. *Neotoma stephensi relicta* Goldman, Journ. Mamm., vol. 13, No. 1, p. 66, Feb. 9, 1932.

Type Locality.—Keams Canyon, Navajo County, Ariz. *Range.*—Plateau region of northeastern Arizona, north of Little Colorado River; southwestern San Juan County in southeastern Utah (Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 454, Dec. 31, 1935); and northwestern New Mexico south to Gallup, grading to southward into *stephensi.*

Neotoma goldmani Merriam†*

1903. *Neotoma goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 48, Mar. 19, 1903. (Regarded by Blossom, Occ. Pap. Mus. Zool. Univ. Michigan No. 315, p. 3, May 29, 1935, as probably a race of *lepida.*)

Type Locality.—Saltillo, Coahuila, México. Altitude, 5,000 feet. *Range.*—Desert regions in southern Coahuila. Zonal range, Lower Sonoran. Recorded also at city of San Luis Potosí, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 11, July 10, 1950).

Neotoma mexicana mexicana Baird†*

1855. *Neotoma mexicana* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 333, April 1855.

1893. *Neotoma mexicana* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 111, July 31, 1893.

Type Locality.—Mountains near Chihuahua, State of Chihuahua, México. *Range.*—Desert ranges along eastern side of Sierra Madre in Chihuahua and northwestern Durango, and thence northward in mountains to western Texas, southern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 181, Mar. 1, 1932), and southeastern Arizona. Zonal range, Upper Sonoran and Transition.

Neotoma mexicana fallax Merriam†*

1894. *Neotoma fallax* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 123, July 2, 1894.

1910. *Neotoma mexicana fallax* Goldman, North Amer. Fauna No. 31, p. 56, Oct. 19, 1910.

Type Locality.—Gold Hill, Boulder County, Colo. *Range.*—Mountains of Colorado south to Datil, San Mateo, and White Mountains of New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 182, Mar. 1, 1932), eastward to northwestern corner of Oklahoma Panhandle (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 126, July 1939).

Neotoma mexicana inopinata Goldman†*

1933. *Neotoma mexicana inopinata* Goldman, Journ. Washington Acad. Sci., vol. 23, No. 10, p. 471, Oct. 15, 1933.

Type Locality.—Chuska Mountains, San Juan County, N. Mex. Altitude, 8,800 feet. *Range.*—Broken or mountainous areas in northwestern New Mexico, northeastern Arizona, southwestern Colorado, and southeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 95, Feb. 15, 1951).

Neotoma mexicana atrata Burt

1939. *Neotoma mexicana atrata* Burt, Occ. Pap. Mus. Zool. Univ. Michigan No. 400, p. 1, Mar. 1, 1939.

Type Locality.—Four miles west of Carrizozo, Lincoln County, N. Mex. *Range.*—Probably the entire lava field that extends south and west from type locality into Otero County, N. Mex.

Neotoma mexicana pinetorum Merriam†*

1893. *Neotoma pinetorum* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 111, July 31, 1893.

1910. *Neotoma mexicana pinetorum* Goldman, North Amer. Fauna No. 31, p. 58, Oct. 19, 1910.

Type Locality.—San Francisco Mountain, Coconino County, Ariz. *Range.*—Plateau region from San Francisco Mountain, north to Grand Canyon and southeastward along Mogollon Mesa to Mogollon and Mimbres Mountains in western New Mexico. Zonal range, Transition.

Neotoma mexicana bullata Merriam†*

1894. *Neotoma mexicana bullata* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 122, July 2, 1894.

Type Locality.—Santa Catalina Mountains, Pima County, Ariz. *Range.*—Known from Santa Catalina Mountains only. Zonal range, Transition.

Neotoma mexicana madrensis Goldman†*

1905. *Neotoma mexicana madrensis* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 31, Feb. 2, 1905.

Type Locality.—Sierra Madre, near Guadalupe y Calvo, Chihuahua, México. Altitude, 7,000 feet. *Range.*—Sierra Madre from northwestern Chihuahua and northeastern Sonora southward to western Zacatecas, México. Zonal range, Transition.

Neotoma mexicana sinaloae J. A. Allen*

1898. *Neotoma sinaloae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 149, Apr. 12, 1898.

1910. *Neotoma mexicana sinaloae* Goldman, North Amer. Fauna No. 31, p. 60, Oct. 19, 1910.

Type Locality.—Tatemeles, Sinaloa, México. *Range.*—Western slope of Sierra Madre from southern Sinaloa northward as far as San Javier, Sonora (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 65, Feb. 15, 1938).

Neotoma mexicana inornata Goldman†*

1938. *Neotoma mexicana inornata* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 60, Mar. 18, 1938.

Type Locality.—Sierra del Carmen, Coahuila, México. Altitude, 6,100 feet. *Range.*—Known from type locality only.

Neotoma navus Merriam†*

1903. *Neotoma navus* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 47, Mar. 19, 1903.

Type Locality.—Sierra Guadalupe, Coahuila, México. *Range.*—High mountains of southern Coahuila. Zonal range, Transition.

Neotoma angustapalata Baker

1951. *Neotoma angustapalata* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 12, p. 217, Dec. 15, 1951.

Type Locality.—Seventy kilometers by highway south of Ciudad Victoria and 6 kilometers west of Pan-American Highway at El Carrizo, Tamaulipas, México. *Range.*—Known from type locality only; probably found in other localities along humid, east face of Sierra Madre Oriental in Tamaulipas.

Neotoma torquata Ward*

1891. *Neotoma torquata* Ward, Amer. Nat., vol. 25, p. 160, February 1891.

1894. *Neotoma fulviventer* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 121, July 2, 1894. (Toluca Valley, México, México.)

1894. *Neotoma orizabae* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 122, July 2, 1894. (Volcán de Orizaba, Puebla, México.)

Type Locality.—Abandoned mine between Tetela del Volcán and Zacualpan, Morelos, México. *Range.*—High mountains of south-central México, from northern Hidalgo to Tehuacan in southeastern Puebla (Hooper, Journ. Mamm., vol. 28, No. 1, p. 55, Feb. 17, 1947) and Morelos. Zonal range, Upper Sonoran, Transition, and Boreal.

Neotoma distincta Bangs*

1903. *Neotoma distincta* Bangs, Proc. Biol. Soc. Washington, vol. 16, p. 89, June 25, 1903.

Type Locality.—Teocelo, near Jalapa, Veracruz, México. *Range.*—Known from type locality only. Zonal range, Humid Tropical.

Neotoma tropicalis Goldman†*

1904. *Neotoma tropicalis* Goldman, Proc. Biol. Soc. Washington, vol. 17, p. 81, Mar. 21, 1904.

Type Locality.—Totontepec, Oaxaca, México. Altitude, 6,500 feet. *Range.*—Mountains of northeastern Oaxaca. Zonal range, Humid Tropical.

Neotoma parvidens Goldman†*

1904. *Neotoma parvidens* Goldman, Proc. Biol. Soc. Washington, vol. 17, p. 81, Mar. 21, 1904.

Type Locality.—Juquila, Oaxaca, México. Altitude, 5,000 feet. *Range.*—Known only from type locality in mountains of southwestern Oaxaca. Zonal range, Humid Tropical.

Neotoma ferruginea ferruginea Tomes

1862. *Neotoma ferruginea* Tomes, Proc. Zool. Soc. London, 1861, pt. 3, p. 282, April 1862.

1884. *Neotoma ferruginea* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

Type Locality.—Dueñas, Sacatepequez, Guatemala. *Range.*—Recorded also at San Lucas, Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 54, Dec. 12, 1934).

Neotoma ferruginea solitaria Goldman†*

1905. *Neotoma ferruginea solitaria* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 31, Feb. 2, 1905.

Type Locality.—Nentón, Huehuetenango, Guatemala. Altitude, 3,500 feet. *Range.*—Known from Nentón and Sacapulas, Guatemala, and probably Pucca Gracias, Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 170, May 29, 1942).

Neotoma ferruginea vulcani Sanborn

1935. *Neotoma ferruginea vulcani* Sanborn, Field Mus. Nat. Hist. Publ. 340, Zool. Ser., vol. 20, p. 84, May 15, 1935.

Type Locality.—Volcán Tajumulco, south slope, San Marcos, Guatemala. Altitude, 13,200 feet. *Range.*—Volcán Tajumulco and probably through Sierra Madre to the north.

Neotoma ferruginea chamula Goldman†*

1909. *Neotoma ferruginea chamula* Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 141, June 25, 1909.

Type Locality.—Mountains near San Cristóbal, Chiapas, México. Altitude, 8,400 feet. *Range.*—High mountains of central Chiapas, México, and southwestern Guatemala. Zonal range, Transition and Canadian.

Neotoma ferruginea isthmica Goldman†*

1904. *Neotoma isthmica* Goldman, Proc. Biol. Soc. Washington, vol. 17, p. 80, Mar. 21, 1904.

1910. *Neotoma ferruginea isthmica* Goldman, North Amer. Fauna No. 31, p. 71, Oct. 19, 1910.

Type Locality.—Huilotepec, 8 miles south of Tehuantepec, Oaxaca, México. Altitude, 100 feet. *Range.*—From Pacific coast region on south side of Isthmus of Tehuantepec, eastward into valley of Chiapas River and northwestward to Coixtlahuaca, Oaxaca. Zonal range, Arid Tropical and Lower Sonoran.

Neotoma ferruginea picta Goldman†*

1904. *Neotoma picta* Goldman, Proc. Biol. Soc. Washington, vol. 17, p. 79, Mar. 21, 1904.

1910. *Neotoma ferruginea picta* Goldman, North Amer. Fauna, No. 13, p. 72, Oct. 19, 1910.

Type Locality.—Mountains near Chilpancingo, Guerrero, México. *Range.*—Sierra Madre of Oaxaca and Guerrero. Zonal range, Transition and Canadian.

Neotoma ferruginea tenuicauda Merriam†*

1892. *Neotoma tenuicauda* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 169, Sept. 29, 1892.

1910. *Neotoma ferruginea tenuicauda* Goldman, North Amer. Fauna No. 31, p. 73, Oct. 19, 1910.

Type Locality.—North slope of El Nevado de Colima, Jalisco, México. Altitude, 12,000 feet. *Range.*—Plateau region of western México from southern Zacatecas to Mount Tancítaro, Michoacán. Zonal range, Lower Sonoran to Boreal.

Neotoma ferruginea ochracea Goldman†*

1905. *Neotoma ferruginea ochracea* Goldman, Proc. Biol. Soc. Washington, vol. 18, p. 30, Feb. 2, 1905.

Type Locality.—Atemajac, near Guadalajara, Jalisco, México. Altitude, 4,000 feet. *Range.*—Vicinity of type locality. Zonal range, Lower Sonoran.

Neotoma ferruginea griseoventer Dalquest

1951. *Neotoma ferruginea griseoventer* Dalquest, Journ. Washington Acad. Sci., vol. 41, No. 11, p. 363, Nov. 14, 1951.

Type Locality.—Xilitla, San Luis Potosí, México. *Range.*—Known only from El Salto and Xilitla on tropical, eastern slopes of Sierra Madre Oriental in San Luis Potosí.

Neotoma chrysomelas J. A. Allen*

1908. *Neotoma chrysomelas* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 653, Oct. 13, 1908.

Type Locality.—Matagalpa, Matagalpa, Nicaragua. *Range.*—From north-central Nicaragua north to south-central Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 171, May 29, 1942).

magister—group

Neotoma magister Baird†*

1858. *N[eotoma] magister* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 498, July 14, 1858. (See also Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, pp. 213–221, Sept. 18, 1894; E. L. Poole, Journ. Mamm., vol. 21, No. 3, pp. 316–318, Aug. 13, 1940; and G. S. Miller, Jr., Journ. Mamm., vol. 21, No. 3, p. 321, Aug. 13, 1940.)

1893. *Neotoma pennsylvanica* Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 45, p. 16, February 1893. (Near top of South Mountain, Cumberland County, Pa., some 6 miles from Pine Grove, at a point known as Lewis's cave.)

Type Locality.—Cave near Carlisle, Cumberland County, or near Harrisburg, Dauphin County, Pa. *Range.*—Mountainous district of extreme western Connecticut (Goodwin, Connecticut Geol. Nat. Hist. Surv. Bull. 53, p. 124, 1935) and Appalachian Mountain region from southern New York south through Pennsylvania, southeastern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 146, Sept. 11, 1942), West Virginia (Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 466, Oct. 7, 1937), western Virginia (Handley and Patton, Wild Mammals of Virginia, p. 168, 1947), Kentucky and eastern Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 283, Feb. 14, 1939) to Tennessee River in northern Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 53, Oct. 28, 1921), westward to Mammoth Cave, Ky., and northward to extreme southern Indiana (Lyon, Amer. Midl. Nat., vol. 17, No. 1, p. 243, January 1936). Recorded also from Allegheny Plateau, Venango County, northwestern Pennsylvania (Richmond and Roslund, Journ. Mamm., vol. 31, No. 2, p. 198, May 25, 1950).

Subgenus HOMODONTOMYS [24] Goldman

1910. *Homodontomys* Goldman, North Amer. Fauna No. 31, p. 86, Oct. 19, 1910. (Type, *Neotoma fuscipes* Baird.)

Neotoma fuscipes fuscipes [25] Baird†*

1858. *Neotoma fuscipes* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 495, July 14, 1858.

1884. *Neotoma fuscipes* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

1894. *Neotoma splendens* True†, Diagnoses of some undescribed wood rats (genus *Neotoma*) in the National Museum, p. 1, June 27, 1894 (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 353, Nov. 15, 1894. Marin County, Calif).

Type Locality.—Petaluma, Sonoma County, Calif. *Range.*—Inner Coast Range of California, north from San Francisco Bay to Oregon line; at north, westward to Siskiyou Mountains and eastward through Siskiyou County at least to Crescent Butte (3 miles west of Modoc County line) and through Shasta County as far as Haydenhill, Lassen County; vertical range from approximately 300 feet near Petaluma, Sonoma County, to 5,500 feet on Horse Ridge, southeast of Ruth, Trinity County; zonal range, Lower Sonoran into Transition (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 220, March 1, 1938).

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[24] Validity questioned by Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 213, Mar. 1, 1938. Regarded as a synonym of *Neotoma* by Burt and Barkalow, Journ. Mamm., vol. 23, No. 3, p. 296, Aug. 14, 1942.

[25] Races of *Neotoma fuscipes* revised by Hooper, Univ. California Publ. Zool., vol. 42, No. 4, pp. 213–244, Mar. 1, 1938.

Neotoma fuscipes monochroura Rhoads*

1894. *Neotoma monochroura* Rhoads, Amer. Nat., vol. 28, No. 325, p. 67, January 1894.

1906. *Neotoma fuscipes monochroura* Stephens, California Mammals, p. 116.

Type Locality.—Grants Pass, Josephine County, Oreg. *Range.*—Coastal belt of Oregon and California; west of Cascade and Coast Ranges, south from Columbia River to San Francisco Bay; vertical range, from near sea level to 4,700 feet (on Horse Mountain, Humboldt County); zonal range, chiefly Transition, but extending from Lower Sonoran to Canadian (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 217, Mar. 1, 1938).

Neotoma fuscipes annectens Elliot*

1898. *Neotoma fuscipes annectens* Elliot, Field Columb. Mus. Publ. 27, Zool. Ser., vol. 1, No. 10 (March), p. 201, Apr. 16, 1898.

1898. *Neotoma fuscipes affinis* Elliot, Field Columb. Mus. Publ. 27, Zool. Ser., vol. 1, No. 10 (March), p. 202, Apr. 16, 1898. (Alum Rock Park, Santa Clara County, Calif.)

Type Locality.—Portola, San Mateo County, Calif. *Range.*—Coastal region, entirely west of Diablo Range, south from San Francisco Bay to Monterey Bay; vertical range, from near sea level up at least to 3,000 feet on Mount Diablo, Contra Costa County; zonal range, chiefly Transition, but into Upper Sonoran in certain regions (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 222, Mar. 1, 1938).

Neotoma fuscipes riparia Hooper

1938. *Neotoma fuscipes riparia* Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 223, Mar. 1, 1938.

Type Locality.—Kincaid's Ranch, 2 miles northeast of Vernalis, Stanislaus County, Calif. *Range.*—Known only from type locality, but probably ranging along west side of San Joaquin River south to southern Merced County or northern Fresno County and north to region of Suisun Straits, Contra Costa County. Zonal range, Lower and Upper Sonoran.

Neotoma fuscipes perplexa Hooper*

1938. *Neotoma fuscipes perplexa* Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 224, Mar. 1, 1938.

Type Locality.—Sweeney's Ranch, 22 miles south of Los Banos, Merced County, Calif. *Range.*—In general, Diablo Range, and region south of Monterey Bay east of Salinas Valley. More specifically, from region of Suisun Straits southward along slopes of Diablo Range to northern Benito County, thence west to Salinas River and south to extreme southern Monterey County and vicinity of Coalinga, Fresno County. Vertical range, from 500 to 2,400 feet; zonal range, Lower and Upper Sonoran.

Neotoma fuscipes bullatior Hooper*

1938. *Neotoma fuscipes bullatior* Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 225, Mar. 1, 1938.

Type Locality.—Two miles south of San Miguel, San Luis Obispo County, Calif. Altitude, 620 feet. *Range.*—From type locality southeastward through Temblor Range and southern end of Diablo Range to southern end of hills (east of Pine Mountains) bounding Carrizo Plains in extreme southeastern San Luis Obispo County; in brief, chiefly area drained by Cholame, Estrelia, and San Juan Creeks. Vertical range, from 620 to 2,600 feet; zonal range, Lower and Upper Sonoran.

Neotoma fuscipes streatori Merriam†*

1894. *Neotoma fuscipes streatori* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 124, July 2, 1894.

Type Locality.—Carbondale, Amador County, Calif. *Range.*—Western slope of Sierra Nevada Range, from southeastern Tehama County south to central Tulare County (entirely west of Sierran crest); east at south of San Joaquin Valley floor and at north of Sacramento River; vertical range, from 200 feet on Butte Creek, Butte County, and at Minkler, Fresno County, to 5,000 feet in King's River Canyon, Fresno County; zonal range, Upper Sonoran into Transition (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 226, Mar. 1, 1938).

Neotoma fuscipes simplex True†*

1894. *Neotoma macrotis simplex* True, Diagnoses of some undescribed wood rats (genus *Neotoma*) in the National Museum, p. 2, June 27, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 354, Nov. 15, 1894.)

1894. *Neotoma fuscipes dispar* Merriam†, Proc. Biol. Soc. Washington, vol. 9, p. 124, July 2, 1894. (Lone Pine, Inyo County, Calif.)

1904. *Neotoma fuscipes mohavensis* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 246, Jan. 7, 1904. (Oro Grande, Mohave Desert, San Bernardino County, Calif.)

1904. *Neotoma fuscipes cnemophila* Elliot, Field Columb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 267, Mar. 7, 1904. (Lockwood Valley, Mount Pinos, Ventura County, Calif.)

1910. *Neotoma fuscipes simplex* Goldman, North Amer. Fauna No. 31, p. 91, Oct. 19, 1910.

Type Locality.—Old Fort Tejon, Tehachapi Mountains, Kern County, Calif. *Range.*—Eastern and southern basal slopes of southern Sierra Nevada, Inyo and Kern Counties, south through Tehachapi region, Kern County, thence southeastward along northern slopes of San Gabriel Mountains, Los Angeles and San Bernardino Counties, through San Bernardino Mountains in extreme southern San Bernardino County; vertical range, from approximately 400 feet on north side of Buena Vista Lake, Kern County, to 9,000 feet at Dry Lake, San Bernardino Mountains, San Bernardino County; zonal range, chiefly Upper Sonoran, but extending from Lower Sonoran to Transition (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 228, Mar. 1, 1938).

Neotoma fuscipes luciana Hooper*

1938. *Neotoma fuscipes luciana* Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 229, Mar. 1, 1938.

Type Locality.—Seaside, Monterey County, Calif. *Range.*—Coastal central California, from Monterey Bay southward through Santa Lucia Mountains to vicinity of Paso Robles and Morro, San Luis Obispo County. Vertical range, from near sea level at least to 3,000 feet at 1¼ miles south of Chalk Peak, Monterey County; zonal range, Upper Sonoran into Transition.

Neotoma fuscipes macrotis Thomas*

1893. *Neotoma macrotis* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 12, p. 234, September 1893.

1894. *Neotoma fuscipes macrotis* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 246, Sept. 25, 1894.

Type Locality.—San Diego, San Diego County, Calif. *Range.*—In general, coastal southern California and northern Baja California; from Santa Margarita (west of Pine Mountains), San Luis Obispo County, southward through mountains of Ventura and Santa Barbara Counties, along southern drainage of San Gabriel Mountains, through San Jacinto and Palomar Mountains to vicinity of Los Pozos, Baja California (at lat. 32° N., approximately); vertical range, from near sea level to 6,800 feet on Thomas Mountain, Riverside County; zonal range, from Lower Sonoran into Transition (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 230, Mar. 1, 1938).

Neotoma fuscipes martirensis Orr*

1934. *Neotoma fuscipes martirensis* Orr, Proc. Biol. Soc. Washington, vol. 47, p. 110, June 13, 1934.

Type Locality.—Valladares, Sierra San Pedro Mártir, Baja California, México. Altitude, 2,700 feet. *Range.*—Chiefly Sierra San Pedro Mártir region of Baja California, but occurring intermittently to coast, northward to approximately lat. 32° N. and southward at least to lat. 30° N.; vertical range, from 25 feet to 8,500 feet; zonal range, Lower Sonoran into Transition (Hooper, Univ. California Publ. Zool., vol. 42, No. 4, p. 232, Mar. 1, 1938).

Subgenus TEONOMA Gray

1843. *Teonoma* Gray, List of . . . Mammalia in the . . . British Museum, p. 117. (Type, *Myoxus drummondii* Richardson.)

Neotoma cinerea cinerea (Ord)*

1815. *Mus cinereus* Ord, *in* [Guthrie], A new geographical, historical, and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, p. 292.

1858. *Neotoma cinerea* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 499, July 14, 1858.

1884. *Neotoma cinerea* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 598, Nov. 29, 1884. (Part.)

Type Locality.—Near Great Falls, Cascade County, Mont. *Range.*—In Canada, Rocky Mountain region in southwestern Alberta (Waterton Lakes National Park), intergrading with *drummondii* in Banff National Park; in southwestern British Columbia (Morrissey, Newgate), intergrading with *occidentalis* farther west (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 143, Jan. 24, 1947); perhaps in extreme northwestern Wyoming and western North Dakota; vertical range, from about 3,000 feet near Jordan, Dawson County, Mont., to 5,000 feet at Bozeman, Gallatin County, Mont. (Hooper, Univ. California Publ. Zool., vol. 42, No. 9, p. 412, May 17, 1940).

Neotoma cinerea drummondii (Richardson)*

1828. *Myoxus drummondii* Richardson, Zool. Journ., vol. 3, p. 517.

1892. *Neotoma cinerea drummondi* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 25, Apr. 13, 1892.

Type Locality.—Probably near Jasper House, Peace River District, Alberta, Canada (see Goldman, North Amer. Fauna No. 31, p. 99, Oct. 19, 1910). *Range.*—Rocky Mountain region of western Alberta (Jasper National Park) and eastern British Columbia, intergrading with *cinerea* in region of Banff National Park; north to Peace River District in northeastern British Columbia, and along Alaska Highway at least to Lower Liard Crossing; apparently intergrading with *saxamans* along British Columbia–Yukon boundary (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 143, Jan. 24, 1947).

Neotoma cinerea saxamans Osgood†*

1900. *Neotoma saxamans* Osgood, North Amer. Fauna No. 19, p. 33, Oct. 6, 1900.

1903. *Neotoma cinerea saxamans* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 544, Oct. 10, 1903.

Type Locality.—Bennett City, head of Lake Bennett, Skeena [Cassiar] District, British Columbia, Canada. *Range.*—Western British Columbia on both sides of coast range from north side of Rivers Inlet north to Bella Coola region (Hagensborg, Stuie), Dean Channel (Hot Springs, Kimsquit) and on east side of Coast Range from Skeena River (Hazelton) and Burns Lake (Wistaria) north to Lake Bennett; through most of southern Yukon (Teslin Lake) and Lapie River, Mile 132, near junction of Pelly and Ross Rivers on Canol Road (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 143, Jan. 24, 1947).

Neotoma cinerea occidentalis Baird†*

1855. *Neotoma occidentalis* Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7 (1854–1855), p. 335, April 1855.

1891. *Neotoma cinerea occidentalis* Merriam, North Amer. Fauna No. 5, p. 58, July 30, 1891.

1899. *Neotoma c[inerea] columbiana* Elliot, Field Columb. Mus. Publ. 32, Zool. Ser., vol. 1, No. 13 (March), p. 255, May 17, 1899. (Ducks, British Columbia, Canada.)

Type Locality.—Shoalwater [Willapa] Bay, Pacific County, Wash. *Range.*—British Columbia coast (Hope, Horseshoe Lake, Bute Inlet, Loughborough Inlet, north to head of Rivers Inlet); in interior from Vanderhoof south through Lillooet, Similkameen Valley (Keremos and Princeton), Okanagan Valley (Osoyoos), and eastward to Beaverdell, Creston and Yahk (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 143, Jan. 24, 1947); Washington except in Blue Mountains (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 336, Apr. 9, 1948); eastward through Rocky Mountains of northern Idaho and western Montana to vicinity of Hamilton, Ravalli County, and Flathead Lake, Flathead County, Mont.; vertical range, from near sea level at Neah Bay, Clallam County, Wash., to 5,500 feet on Mount Adams, Yakima County, Wash. (Hooper, Univ. California Publ. Zool., vol. 42, No. 9, p. 418, May 17, 1940). Recorded also from Cascade Range north of Klamath Valley in Oregon (Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 239, Apr. 10, 1952).

Neotoma cinerea fusca True†*

1894. *Neotoma occidentalis fusca* True, Diagnoses of some undescribed wood rats (genus *Neotoma*) in the National Museum, p. 2, June 27, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 354, Nov. 15, 1894.)

1897. [*Neotoma cinerea*] *fusca* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 544.

1903. *Neotoma fuscus apicalis* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 160, May 7, 1903. (Gardiner, Douglas County, Oreg.)

Type Locality.—Fort Umpqua, Douglas County, Oreg. *Range.*—Humid coastal belt of Cascade Range in Oregon, from Columbia River south to Gardiner, Douglas County; east at north to Portland, Multnomah County, and at south to Eugene, Lane County; zonal range, probably confined to Transition (Hooper, Univ. California Publ. Zool., vol. 42, No. 9, p. 419, May 17, 1940).

Neotoma cinerea pulla Hooper*

1940. *Neotoma cinerea pulla* Hooper, Univ. California Publ. Zool., vol. 42, No. 9, p. 411, May 17, 1940.

Type Locality.—Kohnenberger's Ranch, South Fork Mountain, Trinity County, Calif. Altitude, 3,200 feet. *Range.*—In general, higher regions of Coast and Cascade Ranges of northwestern California and southwestern Oregon; from vicinity of Elk Creek, Glenn County, north and east through Trinity Mountains, western Shasta County, southern Cascade Range in eastern Siskiyou County, Calif., to vicinity of Fort Klamath, Klamath County, Oreg.; north and west (from Elk Creek) through South Fork Mountain and Horse Mountain, Humboldt County, to Doctor Rock Peak, Del Norte County, Calif. Vertical range, from 3,000 feet (at Sisson, Siskiyou County) to 9,000 feet (on Mount Shasta, Siskiyou County); zonal range, Transition, Canadian, and locally into Hudsonian. (See also Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 237, Apr. 10, 1952.)

Neotoma cinerea alticola Hooper*

1940. *Neotoma cinerea alticola* Hooper, Univ. California Publ. Zool. vol. 42, No. 9, p. 409, May 17, 1940.

Type Locality.—Parker Creek [=Shields Creek, U. S. Forest Service map, edition 1932], Warner Mountains, Modoc County, Calif. Altitude, 5,500 feet. *Range.*—Southeastern Washington south of Snake River (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 336, Apr. 9, 1948); eastern Oregon east of Cascade Range, southern Idaho, northern Nevada south to White Pine County and Lake Tahoe (Hall, Mammals of Nevada, p. 536, July 1, 1946), and mountainous and plateau region of eastern and northeastern California. Vertical range, from 3,900 feet (Smoke Creek, Washoe County, Nev.) to 8,500 feet (Lake Helen, Shasta County, Calif.). Recorded also from extreme northwestern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 344, Aug. 10, 1952; see also Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, pp. 238–239, Apr. 10, 1952).

Neotoma cinerea lucida Goldman†*

1917. *Neotoma cinerea lucida* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 111, May 23, 1917. (Regarded as identical with *acraia* by Hooper, Univ.

California Publ. Zool., vol. 42, No. 9, p. 421, May 17, 1940; and as valid by Hall, Mammals of Nevada, p. 538, July 1, 1946).

Type Locality.—Charleston Peak, Charleston Mountains, Clark County, Nev. *Range.*—Spring Mountains in Clark County from Charleston Peak south to Potosi Mountain (Hall, loc. cit.).

Neotoma cinerea acraia (Elliot)*

1904. *Teonoma cinerea acraia* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 247, Jan. 7, 1904.

1940. *Neotoma cinerea acraia* Hooper, Univ. California Publ. Zool., vol. 42, No. 9, p. 413, May 17, 1940.

Type Locality.—Jordan Hot Springs, near Kern River, Sierra Nevada, Tulare County, Calif. (See Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 182, Sept. 26, 1933). *Range.*—In general, southern Sierra Nevada and southern Great Basin. In California, Sierra Nevada from Monache Meadows and Jackass Meadows, Tulare County, north to vicinity of Woodfords, Alpine County; in White, Inyo, and Panamint Mountains and probably in other neighboring high desert ranges; from Sierra Nevada south of Lake Tahoe across central Nevada and from northeastern corner south to Sheep Mountains (Hall, Mammals of Nevada, p. 536, July 1, 1946); mountainous areas of Utah, except east of Colorado and Green Rivers and the northwest; perhaps into northern Arizona, at south, and southwestern Wyoming, at north; vertical range, in California from 5,000 feet on Kings River, Fresno County, to 11,000 feet at Cottonwood Lakes, Inyo County (Hooper, loc. cit.). (See also Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 240, Apr. 10, 1952.)

Neotoma cinerea arizonae Merriam†*

1893. *Neotoma arizonae* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 110, July 31, 1893.

1910. *Neotoma cinerea arizonae* Goldman, North Amer. Fauna No. 31, p. 106, Oct. 19, 1910.

Type Locality.—Keams Canyon, Navajo County, Ariz. *Range.*—Upper Sonoran Zone in northeastern Arizona, southeastern Utah, and probably northward along Green River Valley in southwestern Colorado, and northwestern New Mexico.

Neotoma cinerea macrodon Kelson

1949. *Neotoma cinerea macrodon* Kelson, Journ. Washington Acad. Sci., vol. 30, No. 12, p. 417, Dec. 22, 1949.

Type Locality.—East side of confluence of Green and White Rivers, 1 mile southeast of Ouray, Uintah County, Utah. Altitude, 4,700 feet. *Range.*—Known only from northern edge of East Tavaputs Plateau, Uintah County, Utah.

Neotoma cinerea orolestes Merriam†*

1894. *Neotoma orolestes* Merriam, Proc. Biol. Soc. Washington, vol. 9, p. 128, July 2, 1894.

1894. *Neotoma grangeri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 324, Nov. 7, 1894. (Custer, Custer County, S. Dak.)

1910. *Neotoma cinerea orolestes* Goldman, North Amer. Fauna No. 31, p. 104, Oct. 19, 1910.

Type Locality.—Saguache Valley, 20 miles west of Saguache, Saguache County, Colo. *Range.*—Rocky Mountain region from northern New Mexico north through Colorado and Wyoming to southern Montana and thence eastward to Black Hills in west-central South Dakota; west to eastern end of Uinta Mountains and Uinta Basin, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 93, Feb. 15, 1951). Zonal range mainly Transition and Canadian.

Neotoma cinerea cinnamomea J. A. Allen*

1895. *Neotoma cinnamomea* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 331, Nov. 8, 1895.

1944. *Neotoma cinerea cinnamomea* Hooper, Journ. Mamm., vol. 25, No. 4 (November), p. 415, Dec. 12, 1944.

Type Locality.—Kinney Ranch, Bitter Creek, Sweetwater County, Wyo. *Range.*—Southwestern Wyoming, apparently restricted to arid lands between Uinta and Wind River Ranges (Hooper, loc. cit.) and northwestern Colorado (Warren, The mammals of Colorado, . . ., p. 221, 1942).

Neotoma cinerea rupicola J. A. Allen*

1894. *Neotoma rupicola* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 323, Nov. 7, 1894.

1910. *Neotoma cinerea rupicola* Goldman, North Amer. Fauna No. 31, p. 107, Oct. 19, 1910.

Type Locality.—Corral Draw, southeastern base of Black Hills, Fall River County, S. Dak. Altitude, about 3,700 feet. *Range.*—Big Badlands region from southwestern South Dakota, through southeastern Wyoming and western Nebraska to northeastern Colorado. Zonal range, Upper Sonoran.

Subgenus HODOMYS[26] Merriam

1894. *Hodomys* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 232, Sept. 24, 1894. (Type, *Neotoma alleni* Merriam.)

Neotoma alleni alleni Merriam†*

1892. *Neotoma alleni* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 168, Sept. 29, 1892.

1894. *Hodomys alleni* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 235, Sept. 24, 1894.

1952. *Neotoma alleni alleni* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 241, Apr. 10, 1952.

Type Locality.—Manzanillo, Colima, México. *Range.*—From Rosario, southern Sinaloa, southward at low elevations at least to Colima (Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 498, Nov. 15, 1938).

Neotoma alleni guerrerensis (Goldman)†*

1938. *Hodomys alleni guerrerensis* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 498, Nov. 15, 1938.

1952. *Neotoma alleni guerrerensis* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 241, Apr. 10, 1952.

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[26] Regarded as a subgenus of *Neotoma* by Burt and Barkalow, Journ. Mamm., vol. 23, No. 3, p. 295, Aug. 14, 1942.

Type Locality.—Acapulco, Guerrero, México. Altitude, sea level. *Range.*—Known from type locality only, but probably has an extensive range at low elevations along Pacific coast of México.

Neotoma alleni vetula (Merriam)†*

1894. *Hodomys vetulus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 236, Sept. 24, 1894.

1952. *Neotoma alleni vetula* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 241, Apr. 10, 1952.

Type Locality.—Tehuacán, Puebla, México. *Range.*—Known from type locality and Teotitlán, Oaxaca (Hooper, Journ. Mamm., vol. 28, No. 1, p. 55, Feb. 17, 1947).

Neotoma alleni elattura (Osgood)

1938. *Hodomys vetulus elatturus* Osgood, Field Mus. Nat. Hist. Publ. 431, Zool. Ser., vol. 20, p. 475, Dec. 31, 1938.

1952. *Neotoma alleni elattura* Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 16, p. 241, Apr. 10, 1952.

Type Locality.—Cuapongo (not Chilpancingo), Guerrero, México (see Sanborn, Fieldiana-Zool., Chicago Mus. Nat. Hist., vol. 32, No. 4, p. 242, Aug. 28, 1947). *Range.*—Cuapongo and Chilpancingo in Guerrero west to Tumbiscatio in Michoacán (Kelson, loc. cit.).

Genus TEANOPUS[27] Merriam

1903. *Teanopus* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 81, May 29, 1903. (Type, *Teanopus phenax* Merriam.)

Teanopus phenax Merriam†*

1903. *Teanopus phenax* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 81, May 29, 1903.

Type Locality.—Camoa, Río Mayo, Sonora, México. *Range.*—Northern Sinaloa; and lowlands of southern Sonora from Río Mayo north to San José de Guaymas (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 62, Feb. 15, 1938).

Genus NELSONIA Merriam

1897. *Nelsonia* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 277, Dec 17, 1897. (Type, *Nelsonia neotomodon* Merriam.)

Nelsonia goldmani Merriam†*

1903. *Nelsonia goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 80, May 29, 1903.

Type Locality.—Mount Tancítaro, Michoacán, México. *Range.*—Transverse volcanic biotic province extending across southern and highest part of interior Plateau of México (Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 357, Feb. 12, 1945).

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[27] Regarded as a subgenus of *Neotoma* by Burt and Barkalow, Journ. Mamm., vol. 23, No. 3, p. 296, Aug. 14, 1942.

Nelsonia neotomodon Merriam†*

1897. *Nelsonia neotomodon* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 278, Dec. 17, 1897.

Type Locality.—Mountains near Plateado, Zacatecas, México. Altitude, 8,200 feet.

Genus RHEOMYS Thomas

1906. *Rheomys* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 17, p. 421, April 1906. (Type, *Rheomys underwoodi* Thomas.)

Rheomys thomasi thomasi Dickey

1928. *Rheomys thomasi* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 11, Feb. 1, 1928.

Type Locality.—Finca San Felipe, Mount Cacaguatique, San Miguel, El Salvador. Arid Upper Tropical Zone. Altitude, 3,500 feet (see Stirton, Journ. Mamm., vol. 25, No. 4, p. 341, Dec. 12, 1944). *Range.*—Known from vicinity of type locality.

Rheomys thomasi stirtoni Dickey

1928. *Rheomys thomasi stirtoni* Dickey, Proc. Biol. Soc. Washington, vol. 41, p. 12, Feb. 1, 1928.

Type Locality.—Los Esesmiles, Chalatenango, El Salvador. Humid Upper Tropical Zone. Altitude, 8,000 feet. *Range.*—Known from type locality only.

Rheomys thomasi chiapensis Hooper

1947. *Rheomys thomasi chiapensis* Hooper, Journ. Mamm., vol. 28, No. 1, p. 53, Feb. 17, 1947.

Type Locality.—Prusia, Chiapas, México. Altitude, 1,100 meters. *Range.*—Known from type locality only; probably ranges southward in cloud and rain forests in Sierra Madre.

Rheomys underwoodi Thomas

1906. *Rheomys underwoodi* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 17, p. 422, April 1906.

Type Locality.—Tres Rios, Cartago, Costa Rica. *Range.*—Known from type locality only.

Rheomys hartmanni Enders

1939. *Rheomys hartmanni* Enders, Proc. Acad. Nat. Sci. Philadelphia, vol. 90, p. 295, Feb. 3, 1939.

Type Locality.—Hot Springs on Río Cotito, Chiriquí, Panamá. Altitude, 4,900 feet. *Range.*—Known from type locality only.

Rheomys raptor Goldman†*

1912. *Rheomys raptor* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 7, Sept. 20, 1912.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 4,500 feet. *Range.*—Known from type locality only.

Genus XENOMYS Merriam

1892. *Xenomys* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 160, Sept. 29, 1892. (Type, *Xenomys nelsoni* Merriam.)

Xenomys nelsoni Merriam†*

1892. *Xenomys nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 161, Sept. 29, 1892.

Type Locality.—Hacienda Magdalena, between city of Colima and Manzanillo, Colima, México.

Subfamily MICROTINAE [28] (voles and lemmings)

Tribe Lemmi

Genus DICROSTONYX [29] Gloger (collared lemmings)

1841. *Dicrostonyx* Gloger, Gemeinnütziges Hand- und Hilfsbuch der Naturgeschichte, vol. 1, p. 97. (Type, an American species, probably *Mus hudsonius* Pallas.)

Subgenus DICROSTONYX Gloger

Dicrostonyx hudsonius (Pallas)*

1778. *Mus hudsonius* Pallas, Novae species quadrupedum e glirum ordine, . . . , p. 208.

1897. *Dicrostonyx hudsonius* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 237, Sept. 17, 1897.

Type Locality.—Labrador, Canada. *Range.*—Barren-ground area of Ungava Peninsula and Labrador; south side of Hudson Strait and along Atlantic coast at least as far south as Hamilton Inlet and possibly to Strait of Belle Isle, and on east side of Hudson Bay to about Great Whale River, lat. 55° N.; also on many islands along east side of Hudson Bay from Digges Islands to Belcher Islands (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 148, Jan. 24, 1947).

Subgenus MISOTHERMUS Hensel

1855. *Misothermus* Hensel, Zeitschr. Deutsche Geol. Ges., vol. 7, p. 492. (Type, *Mus torquatus* Pallas.)

Dicrostonyx groenlandicus groenlandicus (Traill)*

1823. *Mus groenlandicus* Traill, *in* Scoresby, Journal of voyage to the northern whale-fishery, . . . , p. 416.

1903. *Dicrostonyx hudsonius* var. *groenlandicus* Kolthoff, Kongl. Svenska Vetensk.-Akad. Handl., vol. 33, No. 9, p. 5, May 4, 1903.

1911. *Dicrostonyx hudsonius groenlandicus* Jacobi, Abhandl. Ber. zool. anthrop.-ethnol. Mus. Dresden, vol. 13, 1908, No. 4, p. 9.

1919. *Dicrostonyx groenlandicus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 533, February 1919.

Type Locality.—Jameson Land, Greenland. *Range.*—From about lat. 69° N. on east coast of Greenland northward to limit of land, lat. 83°24′ N., and thence westward along the coast of north Greenland to Kane Basin, and across Robeson Channel, Ellesmere Island, and Axel Heiberg Island, south through Baffin Island, to Melville Peninsula, Southampton Island, and Baker Lake,

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[28] Genera and subgenera revised by Miller, North Amer. Fauna No. 12, pp. 1–84, July 23, 1896.

[29] Revised by G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, pp. 509–540, February 1919; and by Anderson and Rand, Journ. Mamm., vol. 26, No. 3 (August), pp. 301–306, Nov. 14, 1945.

Keewatin District, intergrading with *richardsoni* in southern part of area (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 148, Jan. 24, 1947).

Dicrostonyx groenlandicus richardsoni Merriam†*

1900. *Dicrostonyx richardsoni* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 26, Mar. 14, 1900.

1919. *Dicrostonyx rubricatus richardsoni* G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 525, February 1919.

1935. *Dicrostonyx groenlandicus richardsoni* Degerbøl, *in* Degerbøl and Freuchen, Mammals, *in* Rep. Fifth Thule Exped. 1921–24, Danish Exped. to Arctic North America, vol. 2, Nos. 4–5, pt. 1, pp. 9–16.

Type Locality.—Fort Churchill, west shore of Hudson Bay, Manitoba, Canada. *Range.*—Barren Grounds west of Hudson Bay from Churchill, northeastern Manitoba, at least as far north as Tavani Bay; west to Artillery Lake, intergrading with *groenlandicus* northwest of Hudson Bay and with *kilangmiutak* farther west (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 148, Jan. 24, 1947).

Dicrostonyx groenlandicus kilangmiutak Anderson and Rand*

1945. *Dicrostonyx groenlandicus kilangmiutak* Anderson and Rand, Journ. Mamm., vol. 26, No. 3, p. 305, Nov. 14, 1945.

Type Locality.—DeHaven Point, southeastern point of Victoria Land, west side of Victoria Strait, District of Franklin, Northwest Territories, Canada; lat. about 69° N., long. about 101°30′ W. *Range.*—Arctic coast mainland at least from mouth of Mackenzie River to Coronation Gulf, and south to Aylmer Lake, in District of Mackenzie; and Banks, Borden, Melville, Taylor, and Victoria Islands in District of Franklin, Northwest Territories (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 148, Jan. 24, 1947).

Dicrostonyx groenlandicus rubricatus (Richardson)*

1839. *Arvicola rubricatus* Richardson, The zoology of Captain Beechey's voyage in His Majesty's ship *Blossom* . . . , p. 7.

1884. *Cuniculus torquatus* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1900. *Dicrostonyx nelsoni* Merriam†, Proc. Washington Acad. Sci., vol. 2, p. 25, Mar. 14, 1900. (St. Michael, Norton Sound, Alaska.)

1900. *Dicrostonyx hudsonius alascensis* Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 37, Mar. 24, 1900. (Point Barrow, Alaska.)

1919. *Dicrostonyx rubricatus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 518, February 1919.

1937. *Dicrostonyx groenlandicus rubricatus* Anderson, Mammals and birds of the western Arctic district, Northwest Territories, Canada, *in* Canada's Western Northland, Dept. Mines and Resources, Ottawa, p. 110, July 9, 1937.

1948. *D*[*icrostonyx*] *t*[*orquatus*] *rubricatus* Ognev, The mammals of Russia (U.S.S.R) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 6, pp. 479, 508. (Simultaneous revision will show that *Dicrostonyx torquatus, Dicrostonyx rubricatus* and *Dicrostonyx groenlandicus are* conspecific.)

Type Locality.—American side of Bering Strait, Alaska. *Range.*—Tundra or unforested regions of northwestern and northern coast of Alaska, from mouth of Kuskokwim River and around to Arctic coast of Yukon (Herschel Island) to western border of Mackenzie River Delta in extreme northwest corner of Mackenzie District (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 149, Jan. 24, 1947). Recorded also from Muller Bay (Port Moller) on west coast of Alaska Peninsula (G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, No. 13, p. 524, February 1919).

Dicrostonyx groenlandicus unalascensis Merriam†*

1900. *Dicrostonyx unalascensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 25, Mar. 14, 1900.

1919. *Dicrostonyx rubricatus unalascensis* G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 530, February 1919.

Type Locality.—Unalaska, Unalaska Island, Alaska. *Range.*—Confined, so far as known, to Unalaska Island.

Dicrostonyx groenlandicus stevensoni Nelson†*

1929. *Dicrostonyx unalascensis stevensoni* Nelson, Proc. Biol. Soc. Washington, vol. 42, p. 145, Mar. 30, 1929.

1941. *Dicrostonyx rubricatus stevensoni* Ellerman, The families and genera of living rodents, vol. 2, p. 558, Mar. 21, 1941.

Type Locality.—Umnak Island, about 6 miles from western end of Unalaska Island, Alaska. *Range.*—Umnak Island.

Dicrostonyx exsul G. M. Allen*

1919. *Dicrostonyx exsul* G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 532, February 1919.

Type Locality.—St. Lawrence Island, Bering Sea, Alaska. *Range.*—St. Lawrence Island.

Genus SYNAPTOMYS[30] **Baird (bog-lemmings)**

1858. *Synaptomys* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 558, July 14, 1858. (Type, *Synaptomys cooperi* Baird.)

Subgenus SYNAPTOMYS Baird

Synaptomys cooperi cooperi Baird†*

1858. *Synaptomys cooperi* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 558, July 14, 1858.

1884. *Synaptomys cooperi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1896. *Synaptomys fatuus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 47, Mar. 9, 1896. (Lake Edward, Quebec, Canada.)

Type Locality.—Unknown, probably somewhere in northern or western portion of New England States or western part of New York (A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 13, Aug. 5, 1927). Restricted to Jackson, Carroll County, N. H., by Bole and Moulthrop (Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 146, Sept. 11, 1942). *Range.*—Canadian and upper part of Transition Zone in northern United States from Minnesota to New England, south to central Wisconsin, southern Michigan, south-central Ohio (Bole and Moulthrop, loc. cit.), and in Catskill Mountains to southern New York; and to Nordmont, Sullivan County, Pa. (Green, A contribution to the mammalogy of the North Mountain region of Pennsylvania, p. 16, Mar. 31, 1930); in Canada, all parts of Nova Scotia including Cape Breton Island, New Brunswick, eastward in Quebec to Godbout and St. Marguerite River, westward through southwestern Quebec and southern Ontario to Pine Falls on Winnipeg River and near Dawson, Sandilands Forest Reserve in southeastern Manitoba (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 144, Jan. 24, 1947).

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[30] Revised by A. B. Howell, North Amer. Fauna No. 50 (June 30), pp. 1–38, Aug. 5, 1927.

Synaptomys cooperi stonei Rhoads*

1893. *Synaptomys stonei* Rhoads, Amer. Nat., vol. 27, p. 53, January 1893.

1897. *Synaptomys cooperi stonei* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 305, June 1897.

Type Locality.—Mays Landing [on Egg River], Atlantic County, N. J. [About half way between Mare Run (on the north) and Mays Landing dam on Great Egg Harbor River (on the south) in a cedar swamp between said pond and main highway on the west, Hamilton Township, Atlantic County, N. J. (personal communication from Witmer Stone).] *Range.*—Occurs as far north as Massachusetts; south along Atlantic Coast to southern part of eastern Peninsula of Maryland (E. L. Poole, Journ. Mamm., vol. 24, No. 1, p. 103, Feb. 20, 1943); southward in Appalachian Mountains into North Carolina and Great Smoky Mountains in Tennessee (E. V. Komarek and R. Komarek, Bull. Chicago Acad. Sci., vol. 5, No. 6, p. 157, Aug. 15, 1938); recorded also in central eastern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 149, Sept. 11, 1942) and Rowan County, eastern Kentucky (Welter and Sollberger, Journ. Mamm., vol. 20, No. 1, p. 81, Feb. 15, 1939).

Synaptomys cooperi helaletes Merriam†*

1896. *Synaptomys helaletes* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 59, Mar. 19, 1896.

1927. *Synaptomys cooperi helaletes* A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 17, Aug. 5, 1927.

Type Locality.—Lake Drummond, Dismal Swamp, Norfolk County, Va. *Range.*—Extreme southeastern Virginia and northeastern North Carolina.

Synaptomys cooperi saturatus Bole and Moulthrop*

1942. *Synaptomys cooperi saturatus* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 149, Sept. 11, 1942.

Type Locality.—Bloomington, McLean County, Ill. *Range.*—Southern half of Wisconsin (from Kelly Lake southward), southwestern Michigan (Cassopolis), south to Ohio River in western Ohio (Clermont County), Indiana (Ohio County), and Illinois (Pope County), and through eastern Missouri to northeastern Arkansas (Craighead County); west at least to Callaway County, Mo., and east to Clermont County, Ohio (Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, pp. 296–297, Nov. 17, 1952).

Synaptomys cooperi gossii (Coues)†*

1877. *Arvicola* (*Synaptomys*) *gossii* Coues, *in* Coues and Allen, Monographs of North American Rodentia (U. S. Geol. and Geogr. Surv. Terr., Rep., vol. 11, Washington), p. 235. (Published as a synonym of *Synaptomys cooperi*, but name stated to apply to Kansas specimens, description and measurements of which are printed on p. 236.)

1896. *Synaptomys helaletes gossii* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 60, Mar. 19, 1896.

1897. *Synaptomys cooperi gossi* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 307, June 1897.

Type Locality.—Neosho Falls, Woodson County, Kans. *Range.*—Eastern Kansas from Stafford and Woodson Counties (Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 7, No. 1, p. 196, Aug. 25, 1952) northward into southeastern Nebraska, and central (Marion County) and southeastern (Henry County) Iowa (Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 297, Nov. 17, 1952); west at least to Lancaster County, Nebr. (Fichter and Hansen, Bull. Univ. Nebraska State Mus., vol. 3, No. 2, pp. 1–9, September 1947), and east to Linn and Muscatine Counties, Iowa (Scott, Iowa State College Journ. Sci., vol. 12, No. 1, p. 77, October 1937).

Synaptomys cooperi paludis Hibbard and Rinker

1942. *Synaptomys cooperi paludis* Hibbard and Rinker, Univ. Kansas Sci. Bull., vol. 28, pt. 1, No. 2, p. 26, May 15, 1942.

Type Locality.—Bog area surrounding brooder pond No. 1, Meade County State Park, 14 miles southwest of Meade, Meade County, Kan. *Range.*—Known only from bog areas of Meade County State Park

Subgenus MICTOMYS True

1894. *Mictomys* True, Diagnoses of new North American mammals, p. 2, Apr. 26, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 242, Nov. 15, 1894.) (Type, *Mictomys innuitus* True.)

Synaptomys borealis borealis (Richardson)*

1828. *Arvicola borealis* Richardson, Zool. Journ., vol. 3, p. 517.

1902. *Synaptomys (Mictomys) bullatus* Preble†, Proc. Biol. Soc. Washington, vol. 15, p. 181, Aug. 6, 1902. (Trout Rock, near Fort Rae, Great Slave Lake, Mackenzie District, Northwest Territories, Canada.)

1907. *Synaptomys borealis* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 49, Apr. 18, 1907.

Type Locality.—Fort Franklin, Great Bear Lake, Mackenzie District, Northwest Territories, Canada. *Range.*—Athabaska–Mackenzie region of Canada from west end of Great Bear Lake south to Peace River block in northeastern British Columbia and Edmonton District in central Alberta; recorded also from Brightsand Lake about 65 miles north-northwest of North Battleford, Saskatchewan (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 144, Jan. 24, 1947).

Synaptomys borealis dalli Merriam†*

1896. *Synaptomys (Mictomys) dalli* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 62, Mar. 19, 1896.

1903. *Synaptomys (Mictomys) andersoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 554, Oct. 10, 1903. (Level Mountains, northern British Columbia, Canada.)

1927. *Synaptomys borealis dalli* A. B. Howell, North Amer. Fauna No. 50 (June 30) p. 24, Aug. 5, 1927.

Type Locality.—Nulato, Yukon River, Alaska. *Range.*—Hudsonian Zone in central and southern Alaska, southwestern Yukon, and northwestern British

Columbia to eastward of coast district, southward as far as head of Bella Coola River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 145, Jan. 24, 1947).

Synaptomys borealis chapmani J. A. Allen*

1903. *Synaptomys* (*Mictomys*) *chapmani* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 555, Oct. 10, 1903.

1927. *Synaptomys borealis chapmani* A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 25, Aug. 5, 1927.

Type Locality.—Glacier, Selkirk Range, British Columbia, Canada. *Range.*—Canadian Zone of southeastern British Columbia, west to Columbia River Valley near Rossland (Green Mountain, 6,300 feet), and from Mount Forget-me-not north through Banff and Jasper National Parks at least to Smoky River on eastern slopes of Rocky Mountains in western Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 145, Jan. 24, 1947). Recorded south to Camas Creek, Glacier National Park, Mont. (Wright, Journ. Mamm., vol. 31, No. 4, p. 460, Nov. 21, 1950).

Synaptomys borealis artemisiae Anderson

1932. *Synaptomys borealis artemisiae* Anderson, Nat. Mus. Canada Bull. 70, p. 104, Nov. 24, 1932.

Type Locality.—Stevenson Creek [=Sixmile Creek], on Hope–Princeton trail, southwest of Princeton, eastern slope of Cascade Range, British Columbia, Canada; lat. 49°23′ N., long. 120°25′ W. Altitude, about 2,400 feet. *Range.*—Known only from Similkameen River Valley, eastern slope of Cascade Range, British Columbia, from dry Transition Zone country near Princeton, at 2,400 feet altitude, to head of Whipsaw Creek just east of Cascade Mountains Divide at 5,600 feet altitude (Anderson, Nat. Mus. Canada Bull. 102 (1946)), p. 145, Jan. 24, 1947).

Synaptomys borealis smithi Anderson and Rand*

1943. *Synaptomys borealis smithi* Anderson and Rand, Canadian Field Nat., vol. 57, No. 6 (September), p. 101, Dec. 10, 1943.

Type Locality.—Thicket Portage, Mile 165, Hudson Bay Railway, Manitoba, Canada. *Range.*—From Ilford (Mile 286, Hudson Bay Railway) south to Riding Mountain National Park, Sandilands Forest Reserve, and other points in southeastern Manitoba, and west to Prince Albert National Park, Saskatchewan, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 146, Jan. 24, 1947). Recorded also from Williams, Lake of the Woods County, and from Warroad, Roseau County, Minn. (Wetzel and Gunderson, Journ. Mamm., vol. 30, No. 4, p. 437, Nov. 17, 1949), and eastward in Canada to Port Severn and Moosonee in Ontario (Anderson and Rand, Canadian Field-Nat., vol. 57, No. 6 (September), p. 102, Dec. 10, 1943).

Synaptomys borealis wrangeli Merriam†*

1896. *Synaptomys* (*Mictomys*) *wrangeli* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 63, Mar. 19, 1896.

1896. *Synaptomys* (*Mictomys*) *truei* Merriam†, Proc. Biol. Soc. Washington, vol. 10, p. 62, Mar. 19, 1896. (Skagit Valley, Skagit County, northwestern Washington.)

1927. *Synaptomys borealis wrangeli* A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 26, Aug. 5, 1927.

Type Locality.—Wrangell, Alexander Archipelago, Alaska. *Range.*—Coastal strip in Canadian Zone from Alexander Archipelago southward to northwestern Washington.

Synaptomys borealis innuitus (True)†*

1894. *Mictomys innuitus* True, Diagnoses of new North American mammals, p. 3, Apr. 26, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 243, Nov. 15, 1894.)

1927. *Synaptomys borealis innuitus* A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 28, Aug. 5, 1927.

Type Locality.—Fort Chimo, Quebec, Canada. *Range.*—Interior of northern Quebec, from Chimo south to upper part of St. Marguerite River about 100 miles north of Gulf of St. Lawrence (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 145, Jan. 24, 1947).

Synaptomys borealis medioximus Bangs*

1900. *Synaptomys* (*Mictomys*) *innuitus medioximus* Bangs, Proc. New England Zool. Club, vol. 2, p. 40, Sept. 20, 1900.

1927. *Synaptomys borealis medioximus* A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 29, Aug. 5, 1927.

Type Locality.—L'Anse au Loup, Strait of Belle Isle, Labrador, Canada. *Range.*—Coast district of southern Labrador from Strait of Belle Isle north to Hamilton Inlet and Nain (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 146, Jan. 24, 1947).

Synaptomys borealis sphagnicola Preble†*

1899. *Synaptomys* (*Mictomys*) *sphagnicola* Preble, Proc. Biol. Soc. Washington, vol. 13, p. 43, May 29, 1899.

1927. *Synaptomys borealis sphagnicola* A. B. Howell, North Amer. Fauna No. 50 (June 30), p. 30, Aug. 5, 1927.

Type Locality.—Fabyans, near base of Mount Washington, Coos County, N. H. *Range.*—Canadian Zone in northern New England States from type locality north to include New Brunswick and portion of Quebec east and south of St. Lawrence River.

Genus LEMMUS[31] Link (lemmings)

1795. *Lemmus* Link, Beyträge zur Naturgeschichte, vol. 1, pt. 2, p. 75. (Type, *Mus lemmus* Linnaeus.)

Lemmus trimucronatus trimucronatus (Richardson)*

1825. *Arvicola trimucronata* Richardson, *in* Parry, Journal of a Second Voyage, . . . , p. 309 (Appendix).

1900. *Lemmus trimucronatus* Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 35, Mar. 24, 1900.

1937. *Lemmus trimucronatus trimucronatus* Anderson, Mammals and birds of the western Arctic District, Northwest Territories, Canada, *in* Canada's Western Northland, Dept. Mines and Resources, Ottawa, p. 110, July 9, 1937.

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[31] American species revised by Davis, Murrelet, vol. 25, No. 2, pp. 19–25, Sept. 19, 1944.

Type Locality.—Point Lake, Mackenzie District, Northwest Territories, Canada. *Range.*—Boreal America, in the east from Hudson Strait north to northern Baffin Island (Admiralty Inlet, Pond Inlet, Strathcona Sound); and southern part of Somerset Island near Fort Ross, Bellot Strait; west of Hudson Bay north of about lat. 62° N. to near eastern end of Great Slave Lake, Clinton Colden Lake, west and north to Cape Bathurst and Cape Kellett on west coast of Banks Island (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 147, Jan. 24, 1947).

Lemmus trimucronatus alascensis Merriam†*

1884. *Myodes obensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1900. *Lemmus alascenis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 26, Mar. 14, 1900.

1900. *Lemmus yukonensis* Merriam†, Proc. Washington Acad. Sci., vol. 2, p. 27, Mar. 14, 1900. (Charlie Creek, Yukon River, Alaska.)

1937. *Lemmus trimucronatus alascensis* Anderson, Mammals and birds of the western Arctic District, Northwest Territories, Canada, *in* Canada's Western Northland, Dept. Mines and Resources, Ottawa, p. 110, July 9, 1937. (*Lemmus sibiricus chrysogaster*, see Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian Mammals, 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 656, Nov. 19, 1951, and *Lemmus trimucronatus alascensis* are regarded as related by Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 6, p. 470, 1948.)

Type Locality.—Point Barrow, Alaska. *Range.*—Alaska, north of lat. 62° N., northwestern Arctic Canada, including northern part of Yukon and northwestern part of Mackenzie District, Northwest Territories, east to Cape Bathurst.

Lemmus trimucronatus helvolus (Richardson)*

1828. *Arvicola* (*Lemmus*) *helvolus* Richardson, Zool. Journ., vol. 3, p. 517.

1908. *Lemmus helvolus* Preble, North Amer. Fauna No. 27, p. 182, Oct. 26, 1908.

1944. *Lemmus trimucronatus helvolus* Davis, Murrelet, vol. 25, No. 2, p. 22, Sept. 19, 1944.

Type Locality.—Near headwaters of one of southern tributaries of Peace River, or between there and Jasper House region, Alberta, Canada (Preble, loc. cit.). *Range.*—Rocky Mountains region of northwestern Alberta and in British Columbia from headwaters of Peace River, Babine Mountains, Omineca Mountains, Stikine Mountains, and Coast Mountains as far south as Stuie at head of Bella Coola River, and Rainbow Mountains (about lat. 52°30′ N.), and north to Tantalus and Teslin Lake in southern Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 147, Jan. 24, 1947).

Lemmus trimucronatus minusculus Osgood†*

1904. *Lemmus minusculus* Osgood, North Amer. Fauna No. 24, p. 36, Nov. 23, 1904.

1944. *Lemmus trimucronatus minusculus* Davis, Murrelet, vol. 25, No. 2, p. 23, Sept. 19, 1944.

Type Locality.—Kakhtul River, near its junction with Malchatna River, Alaska. *Range.*—Southwestern Alaska, at base of Alaskan Peninsula, south, and east of Kuskokwim River.

Lemmus trimucronatus harroldi Swarth*

1931. *Lemmus harroldi* Swarth, Proc. Biol. Soc. Washington, vol. 44, p. 101, Oct. 17, 1931.

1944. *Lemmus trimucronatus harroldi* Davis, Murrelet, vol. 25, No. 2, p. 23, Sept. 19, 1944.

Type Locality.—Nunivak Island, Alaska. *Range.*—So far as known, restricted to Nunivak Island.

Lemmus nigripes (True)†*

1894. *Myodes nigripes* True, Diagnoses of new North American mammals, p. 2, Apr. 26, 1894. (Preprint of Proc. U. S. Nat. Mus., vol. 17, p. 242, Nov. 15, 1894.)

1896. *L[emmus] nigripes* Miller, North Amer. Fauna No. 12, p. 37, July 23, 1896.

Type Locality.—Saint George Island, Pribilof Islands, Alaska. *Range.*—Known from Saint George Island only.

Tribe Microti (voles)

Genus CLETHRIONOMYS[32] Tilesius (red-backed mice)

1850. *Clethrionomys* Tilesius, Isis, Encylopaedische Zeitschrift vorzuglich für Naturgeschichte, Physiologie, etc. (Münchner Verein für Naturkunde), No. 2, p. 28. (Type, *Mus rutilus* Schreber.)

1874. *Evotomys* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 26, p. 186, December 15, 1874. (Type, *Mus rutilus* Pallas.)

rutilus—group

Clethrionomys albiventer Hall and Gilmore*

1932. *Clethrionomys albiventer* Hall and Gilmore, Univ. California Publ. Zool., vol. 38, No. 9, p. 398, Sept. 17, 1932.

Type Locality.—Sevoonga, 2 miles east of North Cape, St. Lawrence Island, Bering Sea, Alaska. *Range.*—St. Lawrence Island.

Clethrionomys rutilus dawsoni[33] (Merriam)*

1888. *Evotomys dawsoni* Merriam, Amer. Nat., vol. 22, p. 650, July 1888.

1898. *Evotomys alascensis* Miller†, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 364, Oct. 15, 1898. (St. Michael, Norton Sound, Alaska. See Osgood, North Amer. Fauna No. 24, p. 34, Nov. 23, 1904.)

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[32] Revised under the name *Evotomys* by V. Bailey, Proc. Biol. Soc. Washington, vol. 11, pp. 113–138, May 13, 1897. For use of the name *Clethrionomys* Tilesius in place of *Evotomys* Coues see Palmer, Proc. Biol. Soc. Washington, vol. 41, p. 87, Mar. 16, 1928.

[33] *Clethrionomys dawsoni* group revised by Orr, Journ. Mamm., vol. 26, No. 1, pp. 67–74, Feb. 27, 1945.

1937. *Clethrionomys dawsoni dawsoni* Anderson, Mammals and birds of the Western Arctic District, Northwest Territories, Canada, *in* Canada's Western Northland, Dept. Mines and Resources, Ottawa, p. 112, July 9, 1937.

1950. *Clethrionomys rutilus dawsoni* Rausch, Journ. Washington Acad. Sci., vol. 40, No. 4, p. 134, Apr. 21, 1950.

Type Locality.—Finlayson River, a northern source of Liard River, lat. 61°30′ N.; long. 129°30′ W., Yukon, Canada. Altitude, 3,000 feet. *Range.*—From Thelon Game Sanctuary along north shore of Great Slave Lake, including adjacent islands, and upper Mackenzie River, Liard River, northwest British Columbia (Alaska Highway), southeastern Yukon (Canol Road), Canada (Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 154, Jan. 24, 1947); west to Juneau and Yakutat, and north along coast to Norton Sound and nearly to Bering Strait (Teller), Alaska (Orr, Journ. Mamm., vol. 26, No. 1, pp. 70–71, Feb. 27, 1945). Recorded from northern edge of Brooks Range (2,000 to 3,500 feet) and from Umiat (300 to 500 feet) at edge of Arctic Coastal Plain (Rausch, loc. cit.).

Clethrionomys rutilus washburni Hanson

1952. *Clethrionomys rutilus washburni* Hanson, Journ. Mamm., vol. 33, No. 4, p. 500, Nov. 19, 1952.

Type Locality.—Perry River, Mackenzie District, Northwest Territories, Canada, lat. 67°34′ N., long. 102°07′ W. *Range.*—Known from type locality only.

Clethrionomys rutilus orca (Merriam)†*

1900. *Evotomys orca* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 24, Mar. 14, 1900.

1945. *Clethrionomys dawsoni orca* Orr, Journ. Mamm., vol. 26, No. 1, p. 72, Feb. 27, 1945.

1950. *Clethrionomys rutilus orca* Rausch, Journ. Washington Acad. Sci., vol. 40, No. 4, p. 135, Apr. 21, 1950.

Type Locality.—Orca, Prince William Sound, Alaska. *Range.*—Alaskan mainland bordering Prince William Sound; also several islands in western part of the sound (Orr, Journ. Mamm., vol. 26, No. 1, p. 72, Feb. 27, 1945).

Clethrionomys rutilus insularis (Heller)

1910. *Evotomys dawsoni insularis* Heller, Univ. California Publ. Zool., vol. 5, No. 11, p. 339, Mar. 5, 1910.

1945. *Clethrionomys dawsoni insularis* Orr, Journ. Mamm., vol. 26, No. 1, p. 72, Feb. 27, 1945.

1950. *Clethrionomys rutilus insularis* Rausch, Journ. Washington Acad. Sci., vol. 40, No. 4, p. 135, Apr. 21, 1950.

Type Locality.—Canoe Passage, Hawkins Island, Prince William Sound, Alaska. *Range.*—Known only from Hawkins and Hinchinbrook Islands, Prince William Sound.

Clethrionomys rutilus watsoni Orr

1945 *Clethrionomys dawsoni watsoni* Orr, Journ. Mamm., vol. 26, No. 1, p. 73, Feb. 27, 1945.

1950. *Clethrionomys rutilus watsoni* Rausch, Journ. Washington Acad. Sci., vol. 40, No. 4, p. 135, Apr. 21, 1950.

Type Locality.—Cape Yakataga, Alaska. *Range.*—Vicinity of type locality in southeastern Alaska.

Clethrionomys rutilus glacialis Orr

1945. *Clethrionomys dawsoni glacialis* Orr, Journ. Mamm., vol. 26, No. 1, p. 71, Feb. 27, 1945.

1950. *Clethrionomys rutilus glacialis* Rausch, Journ. Washington Acad. Sci., vol. 40, No. 4, p. 135, Apr. 21, 1950.

Type Locality.—Glacier Bay, Alaska. *Range.*—Vicinity of type locality in southeastern Alaska.

gapperi—group

Clethrionomys gapperi gapperi (Vigors)*

1830. *Arvicola gapperi* Vigors, Zool. Journ., vol. 5, p. 204.

1884. *Evotomys rutilus gapperi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1894. *Evotomys fuscodorsalis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 103, Apr. 14, 1894. (Trousers Lake, New Brunswick, Canada.)

1928. *Clethrionomys gapperi gapperi* Green, Journ. Mamm., vol. 9, No. 3, p. 255, Aug. 9, 1928.

Type Locality.—Between York [Toronto] and Lake Simcoe, Ontario, Canada. *Range.*—Southwestern Quebec, central, southern, and southwestern Ontario; intergrading with *hudsonius* in western Quebec and northern Ontario, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 151, Jan. 24, 1947); southward to northeastern part of Minnesota, south and west to Carlton and Lake of the Woods Counties (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 90, 1945); Clark County, Wis. (F. J. W. Schmidt, Journ. Mamm., vol. 12, No. 2, p. 103, May 14, 1931); Upper Peninsula and northern part of Lower Peninsula of Michigan (Burt, Mammals of Michigan, p. 215, 1946); highlands of northeast and northwest Connecticut (Goodwin, Mammals of Connecticut, Connecticut Geol. Nat. Hist. Surv. Bull. 53, p. 129, 1935); Sussex County, N. J. (Rhoads, The mammals of Pennsylvania and New Jersey, pp. 92–94, 1903); allocation of specimens from New York, central Pennsylvania and West Virginia to *gapperi* regarded as doubtful by Bole and Moulthrop (Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 152, Sept. 11, 1942).

Clethrionomys gapperi ochraceus (Miller)*

1894. *Evotomys gapperi ochraceus* Miller, Proc. Boston Soc. Nat. Hist., vol. 26, p. 193, Mar. 24, 1894.

1930. *Clethrionomys gapperi ochraceus* Sheldon, Journ. Mamm., vol. 11, No. 3, p. 318, Aug. 9, 1930.

Type Locality.—Alpine Garden, near head of Tuckerman's Ravine, Mount Washington, Coos County, N. H. Altitude, above 5,500 feet. *Range.*—Green Mountains of northern Vermont (see also F. L. Osgood, Journ. Mamm., vol. 19, No. 4, p. 439, Nov. 14, 1938), White Mountains of New Hampshire, northern Maine, central and southern New Brunswick, and parts of extreme southern Quebec south of St. Lawrence River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 153, Jan. 24, 1947); recorded also from Massachusetts and St. Huberts, N. Y. (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 153, Sept. 11, 1942).

Clethrionomys gapperi paludicola Doutt

1941. *Clethrionomys gapperi paludicola* Doutt, Proc. Biol. Soc. Washington, vol. 54, p. 162, Dec. 8, 1941.

Type Locality.—Pymatuning Swamp, 4 miles west of Linesville, Crawford County, Pa. Altitude, 1,000 feet. *Range.*—Swampy hemlock forest of Pymatuning in Ashtabula County, Ohio, and Crawford County, Pa., as well as valley of Conneaut Creek in Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 152, Sept. 11, 1942).

Clethrionomys gapperi rhoadsii (Stone) *

1893. *Evotomys gapperi rhoadsii* Stone, Amer. Nat., vol. 27, p. 55, January 1893. (Regarded as a distinct species by Miller, Bull. New York State Mus., vol. 8, p. 111, Nov. 21, 1900.)

Type Locality.—Near May's Landing, Atlantic County, N. J. [about half way between Mare Run and May's Landing dam on Great Egg Harbor River. In cedar swamp. (Personal communication from Witmer Stone).] *Range.*—Transition areas in Atlantic, Burlington, Camden and Cumberland Counties, N. J. (Rhoads, Mammals of Pennsylvania and New Jersey, pp. 94–97, 1903); recorded also from Lakehurst, Ocean County, N. J. (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 153, Sept. 11, 1942).

Clethrionomys gapperi rupicola E. L. Poole*

1949. *Clethrionomys gapperi rupicola* E. L. Poole, Not. Naturae Acad. Nat. Sci. Philadelphia, No. 212, p. 2, Jan. 21, 1949.

Type Locality.—The Pinnacle, Berks County, Pa. *Range.*—Kittatinny Ridge of Berks and Schuylkill Counties, east-central Pennsylvania. Specimens from South Mountain region of Berks County, as well as those from southern portions of Pocono Plateau (Pocono Lake), Monroe County, and from Summit Mills, Somerset County, Pa., approach this race.

Clethrionomys gapperi maurus R. Kellogg†*

1939. *Clethrionomys gapperi maurus* R. Kellogg, Proc. Biol. Soc. Washington, vol. 52, p. 37, Mar. 11, 1939.

Type Locality.—Black Mountains, 4½ miles southeast of Lynch, Harlan County, Ky. Altitude, 4,100 feet. *Range.*—From Black Mountains, Harlan County, Ky., eastward to Big Stone Gap, Cumberland Mountains, Wise County, Va.

Clethrionomys gapperi carolinensis (Merriam) †*

1888. *Evotomys carolinensis* Merriam, Amer. Journ. Sci., ser. 3, vol. 36, p. 460, December 1888.

1939. *Clethrionomys gapperi carolinensis* Kellogg, Proc. Biol. Soc. Washington, vol. 52, p. 38, Mar. 11, 1939.

Type Locality.—Roan Mountain, Mitchell County, N. C. Altitude, 6,000 feet. *Range.*—Boreal parts of mountains of North Carolina, Tennessee (E. V. Komarek and R. Komarek, Bull. Chicago Acad. Sci., vol. 5, No. 6, p. 157, Aug. 15, 1938; Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 284, Feb. 14, 1939), and southwest Virginia (Handley and Patton, Wild mammals of Virginia, p. 171, 1947); allocation of specimens from western Virginia, western Maryland, and West Virginia doubtful.

Clethrionomys gapperi gaspeanus Anderson

1943. *Clethrionomys gapperi gaspeanus* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 57, Sept. 7, 1943.

Type Locality.—Berry Mountain Camp, near junction of Berry Mountain Brook with Grand Cascapedia River, Matane County, Quebec, Canada. Altitude, 1,500 feet. *Range.*—Gaspé Peninsula, Quebec, and Madawaska County in northwestern New Brunswick (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 152, Jan. 24, 1947).

Clethrionomys gapperi pallescens Hall and Cockrum*

1940. *Clethrionomys gapperi rufescens* R. W. Smith, Amer. Midl. Nat., vol. 24, No. 1, p. 233, July 1940. (Homonym of *Arvicola rufescens* de Selys Longchamps, 1836.)

1952. *Clethrionomys gapperi pallescens* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 302, Nov. 17, 1952.

Type Locality.—Wolfville, Kings County, Nova Scotia, Canada. *Range.*—Nova Scotia.

Clethrionomys gapperi proteus (Bangs)*

1897. *Evotomys proteus* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 137, May 13, 1897.

1938. *Clethrionomys gapperi proteus* C. F. Jackson, Journ. Mamm., vol. 19, No. 4, p. 433, Nov. 14, 1938.

Type Locality.—Hamilton Inlet, Labrador, Canada. *Range.*—Atlantic coast of Labrador (Hamilton Inlet, Davis Inlet, and north at least to Assiwaban River) and along north shore of Gulf of St. Lawrence westward to Bay of Seven Islands (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 153, Jan. 24, 1947).

Clethrionomys gapperi ungava (V. Bailey)†*

1897. *Evotomys ungava* V. Bailey, Proc. Biol. Soc. Washington, vol. 11, p. 130, May 13, 1897.

1939. *Clethrionomys gapperi ungava* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1938, p. 83, Feb. 28, 1939.

Type Locality.—Fort Chimo, Ungava District, Quebec, Canada. *Range.*—Northern parts of Ungava Peninsula, Quebec; probably meeting and intergrading with *proteus* on southeast and with *hudsonius* on southwest (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 154, Jan. 24, 1947).

Clethrionomys gapperi hudsonius Anderson*

1940. *Clethrionomys gapperi hudsonius* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1939, p. 73, Feb. 29, 1940.

Type Locality.—Kapuskasing, on Kapuskasing River, about 64 miles west of Cochrane, Ontario, Canada. *Range.*—From Churchill and northern part of Hudson Bay Railway northwest to Sandhill Lake (lat. 59°21′ N., long. 98°43′ W.) and as far south as Ilford, Manitoba, southeastward in region south of Hudson Bay and west of James Bay to Kapuskasing and Lake Abitibi on transcontinental line of Canadian National Railways in Ontario; south and east sides of James Bay and north on east side of Hudson Bay as far as Richmond Gulf, Quebec, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 152, Jan. 24, 1947).

Clethrionomys gapperi athabascae (Preble) †*

1908. *Evotomys gapperi athabascae* Preble, North Amer. Fauna No. 27, p. 178, Oct. 26, 1908.

1932. *Clethrionomys gapperi athabascae* Harper, Journ. Mamm., vol. 13, No. 1, p. 28, Feb. 9, 1932.

Type Locality.—Fort Smith, Slave River, Mackenzie District, Northwest Territories, Canada. *Range.*—Southern part of Mackenzie District, north to Great Slave Lake, west to Liard River in northern British Columbia, south through Peace River Valley in northeastern British Columbia and northern Alberta; south at least to Jasper National Park, and through northern Saskatchewan to northwestern Manitoba, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 152, Jan. 24, 1947).

Clethrionomys gapperi loringi (V. Bailey) †*

1897. *Evotomys gapperi loringi* V. Bailey, Proc. Biol. Soc. Washington, vol. 11, p. 125, May 13, 1897.

1929. *Clethrionomys gapperi loringi* B. Bailey, Journ. Mamm., vol. 10, No. 2, p. 162, May 9, 1929.

Type Locality.—Portland, Traill County, N. Dak. *Range.*—Woods and thickets of Transition Zone plains region of central Minnesota, eastern North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 88, Jan. 8, 1927), and eastern South Dakota; and in Canada from southwestern Manitoba to foothills of Rocky Mountains in Alberta; intergrading with *borealis* in northern parts of Great Plains region (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 153, Jan. 24, 1947).

Clethrionomys gapperi brevicaudus (Merriam) †*

1891. *Evotomys gapperi brevicaudus* Merriam, North Amer. Fauna No. 5, p. 119, July 30, 1891.

1897. *Evotomys brevicaudus* V. Bailey, Proc. Biol. Soc. Washington, vol. 11, p. 129, May 13, 1897.

1942. *Clethrionomys gapperi brevicaudus* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 153, Sept. 11, 1942.

Type Locality.—Three miles north of Custer, Black Hills, Custer County, S. Dak. Altitude, about 6,000 feet. *Range.*—Black Hills of South Dakota and Wyoming (Cockrum and Fitch, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 22, p. 286, Nov. 15, 1952).

Clethrionomys gapperi galei (Merriam) †*

1890. *Evotomys galei* Merriam, North Amer. Fauna No. 4, p. 23, Oct. 8, 1890.

1931. *Clethrionomys gapperi galei* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 6, Apr. 10, 1931.

Type Locality.—Ward, Boulder County, Colo. Altitude, 9,500 feet. *Range.*—Extreme southwestern Alberta, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 152, Jan. 24, 1947); southward through mountains of Montana, and north-central, northwestern, and southern Wyoming to north and central Colorado (Cockrum and Fitch, Univ. Kansas Publ. Mus. Mat. Hist., vol. 5, No. 22, p. 283, Nov. 15, 1952).

Clethrionomys gapperi gauti Cockrum and Fitch*

1952. *Clethrionomys gapperi gauti* Cockrum and Fitch, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 22, p. 289, Nov. 15, 1952.

Type Locality.—Twining, Taos County, N. Mex. Altitude, 10,700 feet. *Range.*—Rocky Mountains of north-central New Mexico and south-central Colorado.

Clethrionomys gapperi limitis (V. Bailey) †*

1913. *Evotomys limitis* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 133, May 21, 1913.

1932. *Clethrionomys limitis* V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 193, Mar. 1, 1932.

1952. *Clethrionomys gapperi limitis* Cockrum and Fitch, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 22, p. 290, Nov. 15, 1952.

Type Locality.—Willow Creek, a branch of the Gilita, Mogollon Mountains, Catron County, N. Mex. Altitude, 8,500 feet. Range.—Mogollon, San Mateo, and Magdalena Mountains of New Mexico.

Clethrionomys gapperi arizonensis Cockrum and Fitch†*

1952. *Clethrionomys gapperi arizonensis* Cockrum and Fitch, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 22, p. 291, Nov. 15, 1952.

Type Locality.—Little Colorado River, White Mountains, Apache County, Ariz. Altitude, 8,300 feet. *Range.*—White Mountains of eastern Arizona.

Clethrionomys gapperi uintaensis Doutt

1941. *Clethrionomys gapperi uintaensis* Doutt, Proc. Biol. Soc. Washington, vol. 54, p. 161, Dec. 8, 1941.

Type Locality.—Paradise Park, 45 miles northwest of Vernal, Uintah County, Utah. Altitude, 10,050 feet. *Range.*—From Beaver Dams, Daggett County, westward along Uinta Mountains, and as far south in central mountains as southern end of Wasatch Mountains in eastern Salt Lake County, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 104, Feb. 15, 1951), and Uinta County, Utah, and southwestern Wyoming (Cockrum and Fitch, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 22, p. 286, Nov. 15, 1952).

Clethrionomys gapperi idahoensis (Merriam) †*

1891. *Evotomys idahoensis* Merriam, North Amer. Fauna No. 5, p. 66, July 30, 1891.

1933. *Clethrionomys gapperi idahoensis* Whitlow and Hall, Univ. California Publ. Zool., vol. 40, No. 3, p. 265, Sept. 30, 1933.

Type Locality.—Sawtooth (or Alturas) Lake, east base of Sawtooth Mountains, Blaine County, Idaho. Altitude, 7,200 feet. *Range.*—Blue Mountains of southeastern Washington (Dalquest, Univ. Kansas Mus. Nat. Hist., vol. 2, p. 342, Apr. 9, 1948); Blue Mountain section of northeastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 193, Aug. 29, 1936); in Idaho, from Clearwater County south to Snake River Plains (Davis, the Recent mammals of Idaho, p. 310, April 5, 1939) and mountains in southeastern part of State to Utah and Wyoming.

Clethrionomys gapperi stikinensis Hall and Cockrum

1952. *Clethrionomys gapperi stikinensis* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 305, Nov. 17, 1952.

Type Locality.—Great Glacier, Stikine River, British Columbia. *Range.*—Known only from lower Stikine River Valley of British Columbia and Cleveland Peninsula (Bradfield Canal and Helm Bay) of Alaska.

Clethrionomys gapperi wrangeli (V. Bailey) †*

1897. *Evotomys wrangeli* V. Bailey, Proc. Biol. Soc. Washington, vol. 11, p. 120, May 13, 1897.

1941. *Clethrionomys wrangeli* Ellerman, The families and genera of living rodents, vol. 2, p. 572, Mar. 21, 1941.

1952. *Clethrionomys gapperi wrangeli* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 303, Nov. 17, 1952.

Type Locality.—Wrangell, Alaska. *Range.*—Wrangell Island, southern Alaska. Recorded also from Flood Glacier and Great Glacier, Stikine River, and Sergief Island, British Columbia, Canada (Swarth, Univ. California Publ. Zool., vol. 24, No. 2, p. 173, June 17, 1922).

Clethrionomys gapperi solus Hall and Cockrum†*

1952. *Clethrionomys gapperi solus* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 304, Nov. 17, 1952.

Type Locality.—Loring, Revillagigedo Island, Alaska. *Range.*—Revillagigedo Island.

Clethrionomys gapperi phaeus (Swarth) *

1911. *Evotomys phaeus* Swarth, Univ. California Publ. Zool., vol. 7, No. 2, p. 127, Jan. 12, 1911.

1941. *Clethrionomys phaeus* Ellerman, The families and genera of living rodents, vol. 2, p. 572, Mar. 21, 1941.

1952. *Clethrionomys gapperi phaeus* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 302, Nov. 17, 1952.

Type Locality.—Marten Arm, Boca de Quadra, Alaska. *Range.*—Recorded from Chickamin River (Behm Canal), Alaska, south to Port Simpson, British Columbia (Hall and Cockrum, op. cit., p. 303).

Clethrionomys gapperi saturatus (Rhoads) *

1894. *Evotomys gapperi saturatus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 284, Oct. 23, 1894.

1933. [*Clethrionomys gapperi*] *saturatus* Whitlow and Hall, Univ. California Publ. Zool., vol. 40, No. 3, p. 265, Sept. 30, 1933.

Type Locality.—Nelson, British Columbia, Canada, on Kootenay River, 30 miles north of northern boundary of Washington. *Range.*—Southern British Columbia from east slope of Cascades to Rocky Mountains and northward to Cariboo Lake [near Kamloops] (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 153, Jan. 24, 1947); northeastern Washington from Sherman Creek Pass on west to Pass Creek Pass on east (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 342, Apr. 9, 1948); and northern Idaho south to Lewis County (Davis, The Recent mammals of Idaho, p. 311, Apr. 5, 1939) and northwestern Montana (V. Bailey, Proc. Biol. Soc. Washington, vol. 11, p. 129, May 13, 1897).

Clethrionomys gapperi cascadensis Booth*

1945. *Clethrionomys gapperi cascadensis* Booth, Murrelet, vol. 26, No. 2, p. 27, Aug. 10, 1945.

Type Locality.—Two miles south of Blewett Pass, Kittitas County, Wash. Altitude, 3,000 feet. *Range.*—Cascade Mountains of Washington, extending from Skamania and Klickitat Counties in southern part of State northward along both slopes of Cascade Mountains at least to northern Whatcom and northern Okanogan Counties, and probably into southern British Columbia; limits of range not determined (see also, Dalquest, Univ. Kansas Publ. Nat. Hist., vol. 2, p. 343, Apr. 9, 1948).

occidentalis—group

Clethrionomys occidentalis occidentalis (Merriam) †*

1890. *Evotomys occidentalis* Merriam, North Amer. Fauna No. 4, p. 25, Oct. 8, 1890.

1894. *Evotomys pygmaeus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 284, Oct. 23, 1894. (Mouth of Nisqually River, Pierce County, Wash.)

1948. *Clethrionomys californicus occidentalis* Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 344, Apr. 9, 1948.

1952. *Clethrionomys occidentalis occidentalis* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 301, Nov. 17, 1952.

Type Locality.—Aberdeen, Grays Harbor County, Wash. *Range.*—Lowlands of western Washington, east at least to Cottage Lake (Dalquest, loc. cit.), and northward into southern British Columbia.

Clethrionomys occidentalis caurinus (V. Bailey) †*

1898. *Evotomys caurinus* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 21, Jan. 27, 1898.

1935. *Clethrionomys gapperi caurinus* Racey and Cowan, Prov. British Columbia, Rep. Prov. Mus. Nat. Hist. for 1935, pp. H25–26.

1952. *Clethrionomys occidentalis caurinus* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 299, Nov. 17, 1952.

Type Locality.—Lund, east shore of Malaspina Inlet, British Columbia, Canada. *Range.*—Coast region of southwestern British Columbia from near Washington boundary (Chilliwack Valley, Cultus Lake, Lihumitson Park, Skagit), Vancouver, Malaspina Inlet, Horseshoe Lake, Stillwater, and north to Loughborough Inlet, Kingcome Inlet, Rivers Inlet, and Bella Coola region (Hagensborg, Stuie, Caribou Mountains, Rainbow Mountains), and Kimsquit at head of Dean Inlet (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 152, Jan. 24, 1947). Recorded also northward to Inverness, mouth of Skeena River, British Columbia (Hall and Cockrum, op. cit., p. 300).

Clethrionomys occidentalis nivarius (V. Bailey) †*

1897. *Evotomys nivarius* V. Bailey, Proc. Biol. Soc. Washington, vol. 11, p. 136, May 13, 1897.

1929. *Evotomys gapperi nivarius* Taylor and Shaw, Occ. Pap. Charles R. Conner Mus. No. 2, p. 23, December 1929.

1952. *Clethrionomys occidentalis nivarius* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 300, Nov. 17, 1952.

Type Locality.—Northwest slope of Mount Ellinor, Olympic Mountains, Mason County, Wash. Altitude, 4,000 feet. *Range.*—Olympic Mountains, from Sol Duc Hot Springs south and west at least to Staircase, on Lake Cushman, Wash. (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 343, Apr. 9, 1949).

Clethrionomys occidentalis mazama (Merriam) †*

1897. *Evotomys mazama* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 71, Apr. 21, 1897.

1936. *Clethrionomys californicus mazama* V. Bailey, North Amer. Fauna No. 55 (June), p. 192, Aug. 29, 1936.

1952. *Clethrionomys occidentalis mazama* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 301, Nov. 17, 1952.

Type Locality.—Crater Lake, Mount Mazama, Klamath County, Oreg. Altitude, 7,000 feet. *Range.*—Canadian zone area of Cascade Mountains in Oregon, grading into *obscurus* on lower slopes (V. Bailey, North Amer. Fauna No. 55 (June), p. 192, Aug. 29, 1936); and southward into northern California and extreme northern Sierra Nevada; recorded from Mount Shasta, Siskiyou County; Carberry Ranch, near Montgomery Creek, Shasta County; vicinity of Lassen Peak, Tehama County; and near Quincy, Plumas County; vertical range, 3,500 to 7,700 feet; zonal range, Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 184, Sept. 26, 1933).

Clethrionomys occidentalis obscurus (Merriam) †*

1897. *Evotomys obscurus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 72, Apr. 21, 1897.

1936. *Clethrionomys californicus obscurus* V. Bailey, North Amer. Fauna No. 55 (June), p. 192, Aug. 29, 1936.

1952. *Clethrionomys occidentalis obscurus* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 302, Nov. 17, 1952.

Type Locality.—Prospect, Upper Rogue River Valley, Jackson County, Oreg. Altitude, about 2,600 feet. *Range.*—Northwestern, interior, mountainous portion of California immediately east of humid coast belt, and south from Trinity Mountains to vicinity of Yola Bolly Mountain; recorded from Jackson and Castle Lakes, Siskiyou County; South Fork Mountain near Blake Lookout, eastern Humboldt County; divide 12 miles north of North Yolla Bolly Mountain, Trinity County; 2 miles south of South Yolla Bolly Mountain, western Tehama County; vertical range from 4,400 feet up to 7,500 feet; zonal range, Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 185, Sept. 26, 1933); and northward into Oregon through open Transition Zone valleys between heavy timber of humid Coast Ranges and Canadian Zone forests of Cascade Mountains along edges of Rogue, Umpqua, and Willamette River Valleys (V. Bailey, loc. cit.).

Clethrionomys occidentalis californicus (Merriam) †*

1890. *Evotomys californicus* Merriam, North Amer. Fauna No. 4, p. 26, Oct. 8, 1890.

1933. *Clethrionomys californicus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 185, Sept. 26, 1933.

1936. *Clethrionomys californicus californicus* V. Bailey, North Amer. Fauna No. 55 (June, p. 191, Aug. 29, 1936.

1952. *Clethrionomys occidentalis californicus* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 301, Nov. 17, 1952.

Type Locality.—Eureka, Humboldt County, Calif. *Range.*—Humid northwest coastal belt of California, chiefly in or near redwood forests, south from near Oregon line to Sonoma County; southernmost record station, 7 miles west of Cazadero; interiormost station, near Fair Oaks, Humboldt County, and Willits, Mendocino County; vertical range, from near sea level (Gualala) up to 2,300 feet (near Sherwood, Mendocino County); zonal range, Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 185, Sept. 26, 1933); northward through coastal area of western Oregon to Columbia River, ranging from near ocean to 2,500 feet in Coast Range (Saddle Mountain) and inland as far as west slope of Cascade Mountains in Willamette Valley (Estacada, 500 feet) and east slope of Coast Range Mountains (Wells, 223 feet) in Benton County (J. A. Macnab and J. C. Macnab, Journ. Mamm., vol. 22, No. 2, pp. 174–180, May 13, 1941).

Genus PHENACOMYS[34] Merriam

1889. *Phenacomys* Merriam, North Amer. Fauna No. 2, p. 28, Oct. 30, 1889. (Type, *Phenacomys intermedius* Merriam.)

1915. *Arborimus* Taylor, Proc. California Acad. Sci., ser. 4, vol. 5, p. 119, Dec. 30, 1915. (Type, *Phenacomys longicaudus* True.)

intermedius—group

Phenacomys intermedius intermedius Merriam*

1889. *Phenacomys intermedius* Merriam, North Amer. Fauna No. 2, p. 32, Oct. 30, 1889.

1891. *Phenacomys orophilus* Merriam†, North Amer. Fauna No. 5, p. 65, July 30, 1891. (Near head of Timber Creek, Salmon River Mountains, Lemhi County, Idaho. Altitude, 10,500 feet.)

1894. *Phenacomys truei* J. A. Allen†, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 331, Nov. 7, 1894. (Black Hills, now Laramie Mountains, Wyo.)

1897. *Phenacomys preblei* Merriam†, Proc. Biol. Soc. Washington, vol. 11, p. 45, Mar. 16, 1897. (Twin Peak, near Long's Peak, Boulder County, Colo. Altitude, 9,000 feet.)

1899. *Phenacomys constablei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 4, Mar. 4, 1899. (Telegraph Creek, British Columbia, Canada.)

Type Locality.—Basaltic plateau about 20 miles north-northwest of Kamloops, British Columbia, Canada. Altitude, 5,500 feet. *Range.*—British Columbia from west slope of Rocky Mountains to east slope of Cascade and Coast Ranges (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 149, Jan. 24, 1947), extreme northeastern Washington at Pass Creek Pass and Blue Mountains in extreme southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 340, Apr. 9, 1948), mountainous portions of Idaho north of Snake River (Davis, The Recent mammals of Idaho, p. 303, Apr. 5, 1939), Blue and Cascade mountains of Oregon, and Mount Shasta in northern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 183, Sept. 26, 1933); Wasatch and Uinta Mountains of Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 104, Feb. 15, 1951); and southward in the mountains through southern Montana, Wyoming, Colorado, and into northern New Mexico.

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[34] Revised by A. B. Howell, North Amer. Fauna No. 48, pp. 1–66, Oct. 16, 1926.

Phenacomys intermedius levis A. B. Howell†*

1923. *Phenacomys intermedius levis* A. B. Howell, Proc. Biol. Soc. Washington, vol. 36, p. 157, May 1, 1923.

Type Locality.—Saint Mary Lake, Glacier County, Mont. *Range.*—Eastern slope of Rocky Mountains from Jasper National Park, Alberta, and Moose River, British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 150, Jan. 24, 1947), south to Teton County, Mont.

Phenacomys intermedius laingi Anderson

1942. *Phenacomys intermedius laingi* Anderson, Canadian Field-Nat., vol. 56, No. 4 (April), p. 59, June 8, 1942.

Type Locality.—Kimsquit River, Cornice Creek, near head of Dean Inlet, about lat. 52°54′ N., long. 127° W., British Columbia. Altitude, 2,500 feet. *Range.*—Coast Range of British Columbia at heads of Dean Inlet (Kimsquit River) and Bella Coola Inlet (Atnarko River and Rainbow Mountains, near southern boundary of Tweedsmuir Provincial Park).

Phenacomys intermedius oramontis Rhoads*

1895. *Phenacomys oramontis* Rhoads, Amer. Nat., vol. 29, p. 941, October 1895.

1899. *Phenacomys olympicus* Elliot, Field Columb. Mus. Publ. 30, Zool. Ser., vol. 1, p. 225, Feb. 2, 1899. (Happy Lake, Olympic Mountains, Clallam County, Wash. Altitude, 5,000 feet. Regarded as identical with *oramontis* by Anderson, Canadian Field-Nat., vol. 56, No. 4 (April), p. 59, June 8, 1942.)

1899. *Microtus* (*Lagurus*) *pumilus* Elliot, Field Columb. Mus. Publ. 30, Zool. Ser., vol. 1, p. 226, Feb. 2, 1899. (Happy Lake, Olympic Mountains, Clallam County, Wash. Altitude, 5,000 feet.)

Type Locality.—Church Mountain [Lihumitson Mountain], Lihumitson Park, Mount Baker Range, New Westminster district, British Columbia, Canada. Altitude, 6,000 feet. *Range.*—West slope of Cascade and Coast Ranges above 4,500 feet in southwestern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 150, Jan. 24, 1947); in Hudsonian Zone of Olympic and Cascade Mountains of Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 340, Apr. 9, 1948) and southward as far as mouth of Davis Creek on Upper Deschutes River in western Oregon.

Phenacomys intermedius celsus A. B. Howell†*

1923. *Phenacomys intermedius celsus* A. B. Howell, Proc. Biol. Soc. Washington, vol. 36, p. 158, May 1, 1923.

Type Locality.—Muir Meadow, Tuolumne Meadows, Yosemite National Park, Calif. Altitude, 9,300 feet. *Range.*—High central Sierra Nevada, from Pyramid Peak, El Dorado County, south at least to Humphrey's Basin, Fresno County, Calif.; vertical range, 7,700 to 10,800 feet; zonal range, chiefly Hudsonian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 183, Sept. 26, 1933).

ungava—group

Phenacomys ungava ungava Merriam†*

1889. *Phenacomys celatus* Merriam†, North Amer. Fauna No. 2, p. 33, Oct. 30, 1889. (Godbout, Saguenay County, Quebec, Canada.)

1889. *Phenacomys latimanus* Merriam†, North Amer. Fauna No. 2, p. 34, Oct. 30, 1889. (Fort Chimo, Ungava District, Quebec, Canada.)

1889. *Phenacomys ungava* Merriam, North Amer. Fauna No. 2, p. 35, Oct. 30, 1889. (Name selected by Miller, Proc. Biol. Soc. Washington, vol. 11, p. 84, Apr. 21, 1897. Geographical races *ungava*, *crassus*, *soperi*, and *mackenzii* regarded as subspecies of *intermedius* by Crowe, Bull. Amer. Mus. Nat. Hist., vol. 80, p. 404, Feb. 4, 1943.)

Phenacomys ungava ungava Miller, U. S. Nat. Mus. Bull. 79, p. 209, Dec. 31, 1912.

Type Locality.—Fort Chimo, Ungava District, Quebec, Canada. *Range.*—The most eastern records are from Chimo near Hudson Strait, and Godbout, Saguenay County, on north shore of Gulf of St. Lawrence, both in Quebec; specimens from various points in northern Ontario (Abitibi, Manitoulin, and Nipissing Districts, and various points north of Lake Superior) west to Favourable Lake in Kenora District near Manitoba boundary, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 150, Jan. 24, 1947).

Phenacomys ungava crassus Bangs*

1900. *Phenacomys celatus crassus* Bangs, Proc. New England Zool. Club, vol. 2, p. 39, Sept. 20, 1900.

1912. *Phenacomys ungava crassus* Miller, U. S. Nat. Mus. Bull. 79, p. 209, Dec. 21, 1912.

Type Locality.—Rigolet, Hamilton Inlet, Labrador, Canada. *Range.*—Atlantic coast of Labrador from Strait of Belle Isle north to Hamilton Inlet (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 150, Jan. 24, 1947).

Phenacomys ungava soperi Anderson*

1942. *Phenacomys ungava soperi* Anderson, Canadian Field-Nat., vol. 56, No. 4 (April), p. 58, June 8, 1942.

Type Locality.—Near Swanson Creek, in middle of Section 34, Township 19, Range 17, Riding Mountain National Park, Manitoba, Canada, about 10 miles east of Park Headquarters at Wasagaming, on Clear Lake. Altitude, 2,016 feet. *Range.*—From southwestern Manitoba and south-central Saskatchewan, west to south-central Alberta; in forested areas on edge of northern Great Plains region.

Phenacomys ungava mackenzii Preble†*

1902. *Phenacomys mackenzii* Preble, Proc. Biol. Soc. Washington, vol. 15, p. 182, Aug. 6, 1902.

1942. *Phenacomys ungava mackenzii* Anderson, Canadian Field-Nat., vol. 56, No. 4 (April), p. 58, June 8, 1942.

Type Locality.—Fort Smith, Slave River, Mackenzie District, lat. 60° N., Northwest Territories, Canada. *Range.*—North nearly to Great Bear Lake in Northwest Territories (Lake St. Croix, 120 miles slightly west of north of Fort Rae) and southeastern Yukon (Lapie Lakes and Lapie River, Mile 132, on Canol Road); west to eastern foothills of Rocky Mountains in western Alberta

(Bearberry Creek west of Olds), and northeastern British Columbia (Peace River); south to Red Deer River in central Alberta and Athabaska Lake in northwestern Saskatchewan; and east to Churchill, Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 151, Jan. 24, 1947).

albipes—group

Phenacomys albipes Merriam†*

1901. *Phenacomys albipes* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 125, July 19, 1901.

Type Locality.—Redwoods, near Arcata, Humboldt Bay, Humboldt County, Calif. *Range.*—Occurs in a coastal strip of unknown width from Arcata, Humboldt County, Calif., north to vicinity of Columbia River probably, and east as far as Vida, Oreg.

longicaudus—group

Phenacomys longicaudus True†*

1890. *Phenacomys longicaudus* True, Proc. U. S. Nat. Mus., vol. 13, p. 303, Nov. 15, 1890.

Type Locality.—Marshfield, Coos County, Oreg. *Range.*—From vicinity of Monte Rio and Camp Meeker in Sonoma County, and interiorly to Bridgeville, Humboldt County, and South Fork Mountain, Trinity County, in northwestern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 184, Sept. 26, 1933) northward through timbered portions of western Oregon to Columbia River (V. Bailey, North Amer. Fauna No. 55 (June), p. 194, Aug. 29, 1936).

Phenacomys silvicola A. B. Howell*

1921. *Phenacomys silvicolus* A. B. Howell, Journ. Mamm., vol. 2, No. 2, p. 98, May 2, 1921.

Type Locality.—Five miles southeast of Tillamook, Tillamook County, Oreg. *Range.*—Known only from type locality, and from Corvallis, Oreg.; undoubtedly confined to forested area of humid coast belt.

Genus ORTHRIOMYS[35] Merriam

1898. *Orthriomys* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 106, Apr. 30, 1898. (Type, *Microtus umbrosus* Merriam.)

Orthriomys umbrosus (Merriam)†*

1898. *Microtus umbrosus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 107, Apr. 30, 1898.

1941. *Orthriomys umbrosus* Ellerman, The families and genera of living rodents, vol. 2, p. 585, Mar. 21, 1941.

Type Locality.—Mount Zempoaltepec, Oaxaca, México. Altitude, 8,200 feet. *Range.*—Known only from east slope of Mount Zempoaltepec. Zonal range, humid Upper Austral.

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[35] Regarded as a valid genus by Ellerman. The families and genera of living rodents, vol. 2, p. 585, Mar. 21, 1941.

Genus HERPETOMYS[36] Merriam

1898. *Herpetomys* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 107, Apr. 30, 1898. (Type *Microtus guatemalensis* Merriam.)

Herpetomys guatemalensis (Merriam) †*

1898. *Microtus guatemalensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 108, Apr. 30, 1898.

1941. *Herpetomys guatemalensis* Ellerman, The families and genera of living rodents, vol. 2, p. 586, Mar. 21, 1941.

Type Locality.—Todos Santos, Huehuetenango, Guatemala. Altitude, 10,000 feet. *Range.*—Known from type locality only.

Genus MICROTUS[37] Schrank (meadow-mice)

1798. *Microtus* Schrank, Fauna Boica . . ., vol. 1, Abth. 1, p. 72. (Type, *Microtus terrestris* Schrank=*Mus arvalis* Pallas.)

Subgenus CHILOTUS[38] Baird

1858. *Chilotus* Baird, Mammals, *in*, Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 516, July 14, 1858. (Type, *Arvicola oregoni* Bachman.)

Microtus oregoni oregoni (Bachman) *

1839. *Arvicola oregoni* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 1, p. 60.

1884. *Arvicola oregonus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1896. *Microtus oregoni* Miller, North Amer. Fauna No. 12, p. 9, July 23, 1896.

1899. *Microtus morosus* Elliot, Field Columb. Mus. Publ. 30, Zool. Ser., vol. 1, p. 227, Feb. 2, 1899. (Boulder Lake, Olympic Mountains, Clallam County, Wash. Altitude, about 5,000 feet.)

1920. *Microtus oregoni cantwelli* Taylor†, Journ. Mamm., vol. 1, No. 4, p. 180, Aug. 24, 1920. (Glacier Basin, Mount Rainier, Pierce County, Wash. Altitude, 5,935 feet.)

Type Locality.—Astoria, Clatsop County, Oreg. *Range.*—Humid coast belt from Fort Bragg and Mendocino City, Mendocino County, and interiorly to Hoopa Valley and near Fair Oaks, Humboldt County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 191, Sept. 26, 1933), northward west of Cascade Mountains in Oregon, and in the Cascade Mountains, Olympic Mountains, and lowlands of western Washington to northern Puget Sound (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 357, Apr. 9, 1948).

Microtus oregoni bairdi Merriam†*

1897. *Microtus bairdi* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 74, Apr. 21, 1897.

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[36] Regarded as a valid genus by Ellerman, The families and genera of living rodents, vol. 2, p. 586, Mar. 21, 1941.

[37] Revised by V. Bailey North Amer. Fauna No. 17, pp. 1–86, June 6, 1900.

[38] Subspecies of *Microtus oregoni* reviewed by Hatfield and Hooper, Murrelet, vol. 16, No. 2, pp. 33–34, May 1935.

1920. *Microtus oregoni bairdi* Taylor, Journ. Mamm., vol. 1, No. 4, p. 180, Aug. 24, 1920.

Type Locality.—Glacier Peak, Crater Lake, Klamath County, Oreg. Altitude, 7,800 feet. *Range.*—Known only from type locality on an open timberline ridge northwest of Crater Lake (V. Bailey, North Amer. Fauna No. 55 (June), p. 213, Aug. 29, 1936) and Beswick, Siskiyou County, Calif. (Taylor, loc. cit.).

Microtus oregoni adocetus Merriam†*

1908. *Microtus oregoni adocetus* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 145, June 9, 1908.

Type Locality.—South Yolla Bolly Mountain [2 miles south of], Tehama County, Calif. Altitude, 7,500 feet. *Range.*—Region of type locality in Tehama and Trinity Counties, Calif., northwest to South Fork Mountain, Humboldt County, Calif.; thence northward to Medford, Jackson County, Oreg.; zonal range, Canadian, Transition and Upper Sonoran (Hatfield and Hooper, Murrelet, vol. 16, No. 2, p. 34, May 1935).

Microtus oregoni serpens Merriam†*

1897. *Microtus serpens* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 75, Apr. 21, 1897.

1920. *M*[*icrotus*] *o*[*regoni*] *serpens* Taylor, Journ. Mamm., vol. 1, No. 4, p. 180, Aug. 24, 1920.

Type Locality.—Agassiz, British Columbia, Canada. *Range.*—Low country of southwestern British Columbia; recorded from Agassiz, Chilliwack, Huntington, Langley, Port Moody, Sumas, Thurston's, and Vancouver (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 162, Jan. 24, 1947). Specimens from northwestern Washington regarded as *oregoni* (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 358, Apr. 9, 1948).

Subgenus AULACOMYS Rhoads

1894. *Aulacomys* Rhoads, Amer. Nat., vol. 28, p. 182, February 1894. (Type, *Aulacomys arvicoloides* Rhoads.)

Microtus richardsoni richardsoni (DeKay)*

1842. *A*[*rvicola*] *richardsoni* DeKay, Zoology of New York . . ., vol. 1, pt. 1 (Mammalia), p. 91 (*in* [New York State], Natural history of New York).

1894. *Aulacomys richardsoni* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 288, Oct. 23, 1894.

1897. [*Microtus*] *richardsoni* Trouessart, Catalogus Mammalium . . ., fasc. 3, p. 565.

Type Locality.—"Near the foot of the Rocky Mountains." According to V. Bailey (North Amer. Fauna No. 17, p. 60, June 6, 1900) the type was collected by Drummond in the vicinity of Jasper House, Alberta, Canada. *Range.*—High altitudes in Alberta from Waterton Lakes National Park north at least to Jasper National Park in Rocky Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 162, Jan. 24, 1947).

Microtus richardsoni arvicoloides (Rhoads)*

1894. *Aulacomys arvicoloides* Rhoads, Amer. Nat., vol. 28, p. 182, February 1894. (Regarded as identical with *richardsoni* by Anderson and Rand, Canadian Field-Nat., vol. 57, p. 106, Dec. 10, 1943; and as valid by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 356, Apr. 9, 1948.)

1895. *Microtus principalis* Rhoads, Amer. Nat., vol. 29, p. 940, October 1895. (Mount Baker Range, British Columbia, Canada.)

1900. *Microtus richardsoni arvicoloides* V. Bailey, North Amer. Fauna No. 17, p. 62, June 6, 1900.

Type Locality.—Lake Keechelus, Kittitas County, Wash. Altitude, 8,000 feet. [=3,000 feet]. *Range.*—From various mountain ranges (Monashee Mountains, Rossland; Cascade Mountains, Hope-Princeton summit; McGillivray Creek; Coast Range, Lihumitson Park, Alta Lake) in southern British Columbia (regarded as *richardsoni* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 162, Jan. 24, 1947); southward through Cascade Mountains (Tomyhoi Lake south to Potato Hill) of Washington (Dalquest, loc. cit.) and of Oregon to Crater Lake (V. Bailey, North Amer. Fauna No. 55 (June), p. 211, Aug. 29, 1936).

Microtus richardsoni macropus (Merriam)†*

1891. *Arvicola* (*Mynomes*) *macropus* Merriam, North Amer. Fauna No. 5, p. 60, July 30, 1891. (Regarded as identical with *richardsoni* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 162, Jan. 24, 1947; and as valid by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 356, Apr. 9, 1948.)

1900. *Microtus richardsoni macropus* V. Bailey, North Amer. Fauna No. 17, p. 61, June 6, 1900.

Type Locality.—Pahsimeroi Mountains, head of Pahsimeroi River, Custer County, Idaho. Altitude, about 9,700 feet. *Range.*—Blue Mountains section of northeastern Oregon, including Wallowa Mountains, Baker Range, Strawberry Butte, in Canadian and Hudsonian Zones (V. Bailey, North Amer. Fauna No. 55 (June), p. 212, Aug. 29, 1936), Blue Mountains of southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 356, Apr. 9, 1948); eastward through mountainous portions of Idaho (Davis, The Recent mammals of Idaho, p. 322, Apr. 4, 1939) and high Uinta and Wasatch Mountains, as far south as Fishlake Mountains in Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 376, Aug. 10, 1952) to Wyoming and Montana (V. Bailey, loc. cit.).

Subgenus MICROTUS Schrank

1894. *Tetramerodon* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 282, Oct. 23, 1894. (Type, *Arvicola tetramerus* Rhoads.)

pennsylvanicus—group [39]

Microtus pennsylvanicus pennsylvanicus (Ord)*

1815. *Mus pennsylvanica* Ord, *in* [Guthrie], A new geographical, historical, and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, p. 292.

1884. *Arvicola riparius riparius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)

1895. *M*[*icrotus*] *pennsylvanicus* Rhoads, Amer. Nat., vol. 29, p. 940, October 1895.

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[39] Canadian subspecies reviewed by Rand, Canadian Field-Nat., vol. 57, Nos. 7–8 (October-November 1943), pp. 115–123, Jan. 24, 1944.

Type Locality.—Meadows below Philadelphia, Pa. *Range.*—From South Carolina (Charleston County, A. L. Nelson, Journ. Mamm., vol. 15, No. 3, p. 253, Aug. 10, 1934), West Virginia (Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 468, Oct. 7, 1937), Kentucky (Welter and Sollberger, Journ. Mamm., vol. 20, No. 1, p. 81, Feb. 15, 1939), and eastern Missouri (V. Bailey, North Amer. Fauna No. 17, p. 18, June 6, 1900), northward through Iowa (Scott, Iowa State College Journ. Sci., vol. 12, No. 1, p. 77, October 1937) to upper Red River Valley in eastern North Dakota (V. Bailey, North Amer. Fauna No. 49 (1946), p. 90, Jan. 8, 1927), Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 90, 1945), Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 216, 1946), Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 153, Sept. 11, 1942), New York; and northeastern United States to northern New Brunswick, Quebec south of St. Lawrence River, including Gaspé, southern and eastern Ontario, intergrading with *fontigenus* north of Ottawa River; Algonquin Park, Nipissing and east end of Lake Superior; west of Great Lakes intergrading with *drummondii* on southern edges of southwestern Ontario and southeastern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 185, Jan. 24, 1947). Recorded also from 2 miles north of Athens, Ga. (Odum, Journ. Mamm., vol. 29, No. 1, p. 74, Feb. 13, 1948).

Microtus pennsylvanicus nigrans Rhoads*

1897. *Microtus pennsylvanicus nigrans* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49, p. 307, June 18, 1897.

Type Locality.—Currituck, Currituck County, N. C. *Range.*—Near the coast from southeastern Maryland south to northeastern North Carolina; in Virginia inland at least to Richmond County (Handley and Patton, Wild mammals of Virginia, p. 174, 1947). Probably ranges southward to near Santee River, Charleston County, South Carolina (A. L. Nelson, Journ. Mamm., vol. 15, No. 4, p. 253, Nov. 15, 1934).

Microtus pennsylvanicus shattucki Howe*

1901. *Microtus pennsilvanicus* [sic] *shattucki* Howe, Proc. Portland Soc. Nat. Hist., vol. 2, p. 201, Dec. 31, 1901. (Regarded as identical with *pennsylvanicus* by Wyman, Journ. Mamm., vol. 3, No. 3, pp. 162–166, Aug. 4, 1922.)

Type Locality.—Tumble Down Dick Island, near Long Island, Penobscot Bay, Maine. *Range.*—Known from type locality only.

Microtus pennsylvanicus acadicus Bangs*

1897. *Microtus pennsylvanicus acadicus* Bangs, Amer. Nat., vol. 31, p. 239, March 1897.

Type Locality.—Digby, Nova Scotia, Canada. *Range.*—Nova Scotia, Prince Edward Island, Grand Manan Island, and probably southern New Brunswick, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 155, Jan. 24, 1947).

Microtus pennsylvanicus terraenovae (Bangs)*

1894. *Arvicola terraenovae* Bangs, Proc. Biol. Soc. Washington, vol. 9, p. 129, July 27, 1894.

1896. *M*[*icrotus*] *terraenovae* Miller, North Amer. Fauna No. 12, p. 66, July 23, 1896.

1936. *Microtus pennsylvanicus terraenovae* D. L. Davis, Journ. Mamm., vol. 17, No. 3, p. 291, Aug. 13, 1936.

Type Locality.—Codroy, Newfoundland. *Range.*—Newfoundland and Penguin Island (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 157, Jan. 24, 1947).

Microtus pennsylvanicus enixus Bangs*

1896. *Microtus enixus* Bangs, Amer. Nat., vol. 30, p. 1051, December 1896.

1936. *Microtus pennsylvanicus enixus* D. L. Davis, Journ. Mamm., vol. 17, No. 3, p. 291, Aug. 17, 1936. (See also Rand, Canadian Field-Nat., vol. 57, Nos. 7–8 (October–November, 1943), p. 117, Jan. 24, 1944.)

Type Locality.—Hamilton Inlet, Labrador, Canada. *Range.*—Across Ungava Peninsula from James Bay to Hamilton Inlet and Hebron, Labrador (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 155, Jan. 24, 1947).

Microtus pennsylvanicus labradorius V. Bailey†*

1898. *Microtus pennsylvanicus labradorius* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 88, Apr. 30, 1898.

Type Locality.—Fort Chimo, Ungava, Quebec, Canada. *Range.*—Northern Ungava from Port Burwell, Hudson Strait, westward and southward to Great Whale River on east side of Hudson Bay (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 156, Jan. 24, 1947).

Microtus pennsylvanicus fontigenus Bangs*

1896. *Microtus fontigenus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 48, Mar. 9, 1896.

1897. *Microtus pennsylvanicus fontigenus* Miller, Proc. Boston Soc. Nat. Hist., vol. 28, p. 14, Apr. 30, 1897.

Type Locality.—Lake Edward, Quebec, Canada. *Range.*—Quebec, north of St. Lawrence River from Natashkwan, Saguenay County, westward to Gatineau County and across Ontario north of range of *pennsylvanicus* to north shore of Lake Superior; northern limits undetermined (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 156, Jan. 24, 1947).

Microtus pennsylvanicus aphorodemus Preble†*

1902. *Microtus aphorodemus* Preble, North Amer. Fauna No. 22, p. 52, Oct. 31, 1902.

1937. *Microtus pennsylvanicus aphorodemus* Anderson, Mammals and birds of the western Arctic District, Northwest Territories, Canada, *in* Canada's Western Northland, Dept. Mines and Resources, Ottawa, p. 112, July 9, 1937.

Type Locality.—Barren grounds about 50 miles south of Cape Eskimo, near mouth of Thlewiaza River, Keewatin District, Canada. *Range.*—Probably Barren Grounds of Keewatin District; known from type locality and known to intergrade with *drummondii* at Churchill, Manitoba, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 155, Jan. 24, 1947).

Microtus pennsylvanicus insperatus (J. A. Allen)*

1894. *Arvicola insperatus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6. p. 347, Dec. 7, 1894.

1920. *Microtus pennsylvanicus wahema* V. Bailey†, Journ. Mamm., vol. 1, No. 2, p. 72, Mar. 2, 1920. (Glendive, Dawson County, Mont.)

1943. *Microtus pennsylvanicus insperatus* Anderson, Canadian Field-Nat., vol. 57, Nos. 4–5 (May), p. 92, Oct. 17, 1943.

Type Locality.—Custer, Black Hills, Custer County, S. Dak. *Range.*—Semiarid regions from southwestern South Dakota (and probably parts of northeastern Wyoming), southwestern North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 94, Jan. 8, 1927), eastern Montana, and parts of extreme southwestern Saskatchewan and southeastern Alberta; intergrading with *drummondii* over most of its range in Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 156, Jan. 24, 1947. See also Soper, Journ. Mamm., vol. 27, No. 2, p. 147, May 14, 1946).

Microtus pennsylvanicus drummondii (Audubon and Bachman) *

1853. *Arvicola drummondii* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, p. 166.

1897. [*Microtus*] *drummondii* Trouessart,, Catalogus Mammalium . . . . fasc. 3, p. 563.

1899. *Microtus stonei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 5, Mar. 4, 1899. (Liard River, British Columbia, Canada.)

1913. *Microtus pennsylvanicus drummondii* Hollister, Canadian Alpine Journ., Special Number, p. 23, Feb. 17, 1913.

1940. *Microtus pennsylvanicus rubidus* F. H. Dale, Journ. Mamm., vol. 21, No. 3, p. 339, Aug. 13, 1940. (Sawmill Lake, near Telegraph Creek, British Columbia, Canada. Regarded as identical with *drummondii* by Rand, Canadian Field-Nat., vol. 57, Nos. 7–8 (October–November 1943), pp. 115, 121, Jan. 24, 1944, and by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 155, Jan. 24, 1947, and as a valid subspecies by Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 9, p. 106, Nov. 28, 1951.)

Type Locality.—"Valleys of the Rocky Mountains"; probably in the vicinity of Jasper House, Alberta, Canada. *Range.*—Rocky Mountains northward from Crowsnest Pass, through central and northern British Columbia from mountains east of Bella Coola, British Columbia, north to southern and central Yukon, to mouth of Mackenzie River, Northwest Territories, following northern limit of trees to lower Anderson and Horton Rivers, southeastward to Churchill, Manitoba, and Fort Albany on James Bay, and Lake Attawapiskat, Thunder Bay, and Rainy River, in western Ontario; nearly the whole of Manitoba, all of Saskatchewan except in extreme southwest, and all of Alberta except in extreme southeast; intergrading with *fontigenus* in western Ontario, with *aphorodemus* in northeastern Manitoba, and with *insperatus* in semiarid parts of southern Saskatchewan and Alberta (Anderson, loc. cit.); and southward to high glacial-prairie region between Missouri and Red River Valleys of North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 93, Jan. 8, 1927), grading toward *drummondii* in northwestern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 20, 1945).

Microtus pennsylvanicus arcticus Cowan

1951. *Microtus pennsylvanicus arcticus* Cowan, Journ. Mamm., vol. 32, No. 3, p. 353, Aug. 23, 1951.

Type Locality.—Kidluit Bay, northeast corner of Richards Island, lat. 69°31′ N., long. 133°49′ W., Mackenzie District, Northwest Territories, Canada. *Range.*—Known from type locality only.

Microtus pennsylvanicus alcorni Baker*

1951. *Microtus pennsylvanicus alcorni* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 9, p. 105, Nov. 28, 1951.

Type Locality.—Six miles southwest of Kluane, Yukon Territory, Canada. Altitude, 2,550 feet. *Range.*—Extreme southwestern Yukon Territory and adjacent parts of Alaska as far south as Haines, as far north as Northway, and as far west along Alaskan coast as Anchorage and Tyonek.

Microtus pennsylvanicus tananaensis Baker*

1951. *Microtus pennsylvanicus tananaensis* Baker, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 9, p. 107, Nov. 28, 1951.

Type Locality.—Yerrick Creek, 21 miles west and 4 miles north of Tok Junction, Alaska. *Range.*—East-central Alaska as far south as Tok Junction, as far west as Mount McKinley and Nulato (V. Bailey, North Amer. Fauna No. 17, p. 24, June 6, 1900), as far north as Fairbanks, and as far east as Eagle .

Microtus pennsylvanicus admiraltiae Heller*

1909. *Microtus admiraltiae* Heller, Univ. California Publ. Zool., vol. 5, No. 2, p. 256, Feb. 18, 1909.

1933. *Microtus pennsylvanicus admiraltiae* Swarth, Proc. Biol. Soc. Washington, vol. 46, p. 208, Oct. 26, 1933.

Type Locality.—Windfall Harbor, Admiralty Island, Alaska. *Range.*—Known from Admiralty Island only.

Microtus pennsylvanicus modestus (Baird)†*

1858. *Arvicola modesta* Baird, *in* Mammals, Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 535, July 14, 1858.

1894. *Arvicola* (*Mynomes*) *microcephalus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 286, Oct. 23, 1894. (Lac La Hache, British Columbia, Canada. Regarded as valid by F. H. Dale, Journ. Mamm., vol. 21, No. 3, p. 337, Aug. 13, 1940.)

1900. *Microtus pennsylvanicus modestus* V. Bailey, North Amer. Fauna No. 17, p. 20, June 6, 1900.

Type Locality.—Cochetopa ("Sawatch") Pass, Saguache County, Colo. *Range.*—Rocky Mountains and adjacent ranges from San Rafael near eastern point of Zuni Mountains and Sangre de Cristo Mountains in northern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 200, Mar. 1, 1932), Colorado (Warren, The mammals of Colorado, . . . , p. 226, 1942), Wyoming, and Montana; to interior, wet belt of southwestern British Columbia, including Cariboo, Monashee, and Selkirk Mountains and that part of interior plateau east of Fraser River and north of Kamloops Lake (F. H. Dale, Journ. Mamm., vol. 21, No. 3, p. 337, Aug. 13, 1940) ; and westward to near Pocatello, Bannock County and Coeur d'Alene, Kootenai County, Idaho (Davis, The Recent mammals of Idaho, p. 315, Apr. 5, 1939) ; and south to valleys of central northern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 363, Aug. 10, 1952).

Microtus pennsylvanicus aztecus (J. A. Allen)*

1893. *Arvicola* (*Mynomes*) *aztecus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 73, Apr. 28, 1893.

1897. [*Microtus*] *aztecus* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 562.

1952. *Microtus pennsylvanicus aztecus* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 307, Nov. 17, 1952.

Type Locality.—Aztec, San Juan County, N. Mex. Altitude, 5,900 feet. *Range.*—San Juan Valley in northwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 203, Mar. 1, 1932).

Microtus pennsylvanicus funebris F. H. Dale*

1940. *Microtus pennsylvanicus funebris* F. H. Dale, Journ. Mamm., vol. 21, No. 3, p. 338, Aug. 13, 1940. (Regarded as identical with *modestus* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 156, Jan. 24, 1947; and as valid by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 346, Apr. 9, 1948.)

Type Locality.—Coldstream, 3½ miles southeast of Vernon, British Columbia, Canada. Altitude, 1,450 feet. *Range.*—Southern part of arid, interior belt and southern Coast Ranges east of main summit, from Okanagan Valley, on southeast, to Anahim Lake, near head of Dean River, on northwest, including lower Fraser and Thompson River Valleys, British Columbia; in northeastern Washington, west to Conconully and east to Newport (Dalquest, loc. cit.); and extreme northern Idaho south to Cocolalla, Bonner County.

Microtus pennsylvanicus kincaidi Dalquest*

1941. *Microtus montanus kincaidi* Dalquest, Proc. Biol. Soc. Washington, vol. 54, p. 145, Sept. 30, 1941.

1948. *Microtus pennsylvanicus kincaidi* Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 347, Apr. 9, 1948.

Type Locality.—The Potholes, 10 miles south of Moses (Neppel) Lake, Grant County, Wash. *Range.*—Columbian Plateau, in Grand Coulee area, Wash.

Microtus breweri (Baird)†*

1858. *Arvicola breweri* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1, (Washington, 1857), p. 525, July 14, 1858.

1896. *Microtus breweri* Miller, Proc. Boston Soc. Nat. Hist., vol. 27, p. 83, June 1896.

Type Locality.—Muskeget Island, off Nantucket, Mass. *Range.*—Muskeget Island.

Microtus nesophilus V. Bailey†*

1898. *Microtus insularis* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 86, Apr. 30, 1898. (Not of Nilsson, 1844.)

1898. *Microtus nesophilus* V. Bailey, Science, new ser. vol. 8, p. 783, Dec. 2, 1898. (Substitute for *insularis* V. Bailey.)

Type Locality.—Great Gull Island, off eastern extremity of Long Island, Suffolk County, N. Y. *Range.*—Great Gull Island, at entrance to Long Island Sound, and adjacent Little Gull Island (Miller, Bull. New York State Mus., vol. 6, p. 324, Nov. 18, 1899).

Microtus provectus Bangs*

1908. *Microtus provectus* Bangs, Proc. New England Zool. Club, vol. 4, p. 20, Mar. 6, 1908.

Type Locality.—Block Island, Newport County, Rhode Island. *Range.*—Known from type locality only.

montanus—group [40]

Microtus montanus montanus (Peale)*

1848. *Arvicola montana* Peale, Mammalia and ornithology, *in* United States exploring expedition, during the years 1838–42, under the command of Charles Wilkes, U. S. N., Philadelphia, vol. 8, p. 44.

1897. [*Microtus*] *montanus* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 563.

Type Locality.—Headwaters of Sacramento River. near Mount Shasta [probably close to Sisson (=Mount Shasta City)], Siskiyou County, Calif. *Range.*—Siskiyou region of extreme north-central portion of California, south from Oregon line to Fort Crook [near Burgettville], Shasta County, west to Stud Horse Canyon, Siskiyou Mountains, Siskiyou County, and east to east side of Tule Lake, Modoc County; vertical range, 2,700 feet up to 6,500 feet; zonal range, Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 185, Sept. 26, 1933); and east of Cascade Mountains in western Oregon.

Microtus montanus dutcheri V. Bailey†*

1898. *Microtus dutcheri* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 85, Apr. 30, 1898.

1913. *Microtus montanus dutcheri* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 317, Aug. 28, 1913.

Type Locality.—Big Cottonwood Meadows, southeast of Mount Whitney, Inyo County, Calif. Altitude, 10,100 feet. *Range.*—High southern Sierra Nevada of California in vicinity of Mount Whitney; recorded south to Jackass Meadow, Tulare County, north to Whitney Creek, Tulare County, and east to Little Cottonwood Creek, Inyo County; vertical range, 6,700 feet (Jordan Hot Springs, Tulare County) to 11,000 feet (Cottonwood Lakes, Inyo County); zonal range, Canadian and Hudsonian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 186, Sept. 26, 1933).

Microtus montanus yosemite Grinnell*

1914. *Microtus montanus yosemite* Grinnell, Proc. Biol. Soc. Washington, vol. 27, p. 207, Oct. 31, 1914.

Type Locality.—Yosemite Valley, Mariposa County, Calif. Altitude, 4,000 feet. *Range.*—Central and northern Sierra Nevada and northeast through Modoc region to southeastern Oregon; recorded from Goose Lake, Modoc County, south to head of San Joaquin River, in Fresno County; west at north to vicinity of Cassel, Shasta County; vertical range, from 3,000 feet (Cassel) up to 10,350 feet

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[40] Reviewed by Hall, Proc. Biol. Soc. Washington, vol. 51, pp. 131–134, Aug. 23, 1938. California forms revised by R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 7, pp. 245–274, Apr. 18, 1922.

(Vogelsang Lake, Yosemite National Park); zonal range, Transition to Hudsonian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 186, Sept. 26, 1933); recorded also at 12,000 feet at McAfee Meadow and at 10,400 feet at Big Prospector Meadow, both in White Mountains, Mono County, Calif.; and west-central Nevada from Pyramid Lake south to Mount Grant and eastward along Truckee Canal at least to eastern border of Lyon County (Hall, Mammals of Nevada, p. 546, July 1, 1946).

Microtus montanus canicaudus Miller†*

1897. *Microtus canicaudus* Miller, Proc. Biol. Soc. Washington, vol. 11, p. 67, Apr. 21, 1897.

1951. *Microtus montanus canicaudus* Hall and Kelson, Univ. Kansas. Publ. Mus. Nat. Hist., vol. 5, No. 7, p. 77, Oct. 1, 1951.

Type Locality.—McCoy, Willamette Valley, Polk County, Oreg. *Range.*—Willamette Valley eastward at least to Hood River and Wapinitia, Oreg.

Microtus montanus canescens V. Bailey†*

1898. *Microtus nanus canescens* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 87, Apr. 30, 1898.

1938. *Microtus montanus canescens* Hall, Proc. Biol. Soc. Washington, vol. 51, p. 133, Aug. 23, 1938.

Type Locality.—Conconully, Okanogan County, Wash. *Range.*—Lower levels in dry belt of southern British Columbia east of Cascade Mountains (Okanogan and Osoyoos in Okanogan Valley, and Midway and Myers Creek in Kettle River Valley), Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 157, Jan. 24, 1947); and southward in eastern foothills of Cascade Mountains from British Columbia boundary, probably to Columbia River; recorded east to Benton City, Wash. (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 349, Apr. 9, 1948).

Microtus montanus nanus (Merriam)†*

1891. *Arvicola* (*Mynomes*) *nanus* Merriam, North Amer. Fauna No. 5, p. 63, July 30, 1891.

1938. *Microtus montanus nanus* Hall, Proc. Biol. Soc. Washington, vol. 51, p. 133, Aug. 23, 1938.

Type Locality.—Pahsimeroi Mountains, head of Pahsimeroi River, Custer County, Idaho. Altitude, 9,350 feet. *Range.*—From Clearwater drainage basin in central Idaho (Davis, The Recent mammals of Idaho, p. 316, Apr. 5, 1939) westward as far as 5 miles east of Wallula in southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 348, Apr. 9, 1948) and to Hay Creek on ridge between John Day and Deschutes Rivers in Blue Mountain section of northeastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 204, Aug. 29, 1936); southward to northeastern corner of Nevada (Hall, Mammals of Nevada, p. 545, July 1, 1946), northern Utah, including Wasatch and Uinta Mountains (Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 6, Apr. 10, 1931; Kelson, Univ. Utah. Biol. Ser., vol. 11, No. 3, p. 96, Feb. 15, 1951), and Rocky Mountains from Montana southward into Wyoming.

Microtus montanus pratincolus Hall and Kelson*

1951. *Microtus montanus pratincolus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 7, p. 75, Oct. 1, 1951.

Type Locality.—Six miles east of Hamilton, Ravalli County, Mont. Altitude, 3,700 feet. *Range.*—Flathead and Bitterroot Valleys of western Montana.

Microtus montanus micropus Hall*

1935. *Microtus montanus micropus* Hall, Univ. California Publ. Zool., vol. 40, No. 12, p. 417, Oct. 25, 1935.

Type Locality.—Cleveland Ranch, Spring Valley, White Pine County, Nev. Altitude, 6,000 feet. *Range.*—Northern part of Nevada (extreme northeastern corner excepted) south to Eagle Valley, Lincoln County; Monitor and Reese River Valleys, Nye County; and northern end of Virginia Mountains, Washoe County (Hall, Mammals of Nevada, p. 544, July 1, 1946); and Utah, generally along western margins of Pleistocene Lake Bonneville (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 51, Aug. 10, 1952).

Microtus montanus undosus Hall*

1935. *Microtus montanus undosus* Hall, Univ. California Publ. Zool., vol. 40, No. 12, p. 420, Oct. 25, 1935.

Type Locality.—Lovelock, Pershing County, Nev. *Range.*—Humboldt and Carson sinks and lower reaches of Humboldt River in west-central Nevada (Hall, Mammals of Nevada, p. 547, July 1, 1946).

Microtus montanus nevadensis V. Bailey†*

1898. *Microtus nevadensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 86, Apr. 30, 1898.

1935. *Microtus montanus nevadensis* Hall, Univ. California Publ. Zool., vol. 40, No. 12, p. 423, Oct. 25, 1935.

Type Locality.—Big salt marsh below Watkins Ranch, Ash Meadows, Nye County, Nev. *Range.*—Known from type locality only.

Microtus montanus fucosus Hall

1935. *Microtus montanus fucosus* Hall, Univ. California Publ. Zool., vol. 40, No. 12, p. 421, Oct. 25, 1935.

Type Locality.—Hiko, Pahranagat Valley, Lincoln County, Nev. Altitude, 4,000 feet. *Range.*—Pahranagat Valley.

Microtus montanus rivularis V. Bailey†*

1898. *Microtus nevadensis rivularis* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 87, Apr. 30, 1898.

1900. *Microtus montanus rivularis* V. Bailey, North Amer. Fauna No. 17, p. 29, June 6, 1900.

Type Locality.—St. George, Washington County, Utah. *Range.*—Tule marshes along Virgin River, Washington County.

Microtus montanus amosus Hall and Hayward

1941. *Microtus montanus amosus* Hall and Hayward, Great Basin Naturalist, vol. 2, No. 2 (June 30), p. 105, July 20, 1941.

Type Locality.—Torrey, Wayne County, Utah. *Range.*—Southern end of high plateaus in Colorado River drainage and northward at lower elevations, and in that part of Uinta Basin west of Green River, Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 97, Feb. 15, 1951).

Microtus montanus nexus Hall and Hayward*

1941. *Microtus montanus nexus* Hall and Hayward, Great Basin Naturalist, vol. 2, No. 2 (June 30), p. 106, July 20, 1941.

Type Locality.—West Canyon, Oquirrh [Oquirrah] Range, Utah County, Utah. *Range.*—Valleys and mountains of central Utah from Ogden south to Fish Lake Plateau; limits of range undetermined.

Microtus montanus caryi V. Bailey†*

1917. *Microtus montanus caryi* V. Bailey, Proc. Biol. Soc. Washington, vol. 30, p. 29, Feb. 21, 1917.

Type Locality.—Milford, Fremont County, Wyo. *Range.*—Meadows along Bear, Green, and Wind River Valleys in arid sagebrush sections of western and southwestern Wyoming.

Microtus montanus fusus Hall*

1938. *Microtus montanus fusus* Hall, Proc. Biol. Soc. Washington, vol. 51, p. 131, Aug. 23, 1938.

Type Locality.—Two and one-half miles east of summit of Cochetopa Pass, Saguache County, Colo. *Range.*—Rocky Mountain region southward from Kinney Ranch, Sweetwater County, in southern Wyoming, to Florida, La Plata County, in southern Colorado; presumably also in San Juan Range (8,700 to 9,900 feet) in north-central New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 198, Mar. 1, 1932).

Microtus montanus arizonensis V. Bailey†*

1898. *Microtus montanus arizonensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 88, Apr. 30, 1898.

Type Locality.—Springerville, Apache County, Ariz. *Range.*—East-central Arizona; and Zuni and Jemez Mountains, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 199, Mar. 1, 1932).

californicus—group [41]

Microtus californicus californicus (Peale)†*

1848. *Arvicola californica* Peale, Mammalia and ornithology, *in* United States exploring expedition, during the years 1838–42, under the command of Charles Wilkes, U. S. N., Philadelphia, vol. 8, p. 46.

1853. *Arvicola edax* Le Conte†, Proc. Acad. Nat. Sci. Philadelphia, vol. 6 (1852–1853), p. 405. (California, south of San Francisco. Probably Monterey according to R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 18, Dec. 28, 1918.)

1858. *Arvicola trowbridgii* Baird†, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 529, July 14, 1858. (Monterey, Calif.)

1897. [*Microtus*] *californicus* Trouessart, Catalogus Mammalium . . ., fasc. 3, p. 563.

Type Locality.—Vicinity of San Francisco Bay, Calif.; probably at San Francisquito Creek, near Palo Alto, Santa Clara County. *Range.*—Coastal region of west-central California, west of San Joaquin Valley, from upland area on south side of San Francisco Bay south into San Luis Obispo County (except salt marshes and sand hills along Monterey Bay); recorded from San Francisco and Berkeley south to Pozo, San Luis Obispo County, and east to Sweeney's Ranch, 22 miles southwest of Los Banos, in southwestern Merced County; vertical range, up to at least 2,800 feet (slopes of Mount Diablo, Contra Costa County); zonal range, chiefly Upper Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 186, Sept. 26, 1933).

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[41] Races of *Microtus californicus* revised by R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, pp. 1–42, Dec. 28, 1918.

Microtus californicus halophilus von Bloeker*

1937. *Microtus californicus halophilus* von Bloeker, Proc. Biol. Soc. Washington, vol. 50, p. 156, Sept. 10, 1937.

Type Locality.—Moss Landing, Monterey County, Calif. *Range.*—Salt marshes and sand hills of Monterey County, from mouth of Elkhorn Slough south to Seaside.

Microtus californicus paludicola Hatfield*

1935. *Microtus californicus paludicola* Hatfield, Journ. Mamm., vol. 16, No. 4, p. 316, Nov. 15, 1935.

Type Locality.—Melrose Marsh, Alameda County, Calif. *Range.*—Salt marsh areas of southern end of San Francisco Bay region, from west base of El Cerrito, Albany, Alameda County, around south end of bay to Redwood, San Mateo County.

Microtus californicus constrictus V. Bailey†*

1900. *Microtus californicus constrictus* V. Bailey, North Amer. Fauna No. 17, p. 36, June 6, 1900.

Type Locality.—Cape Mendocino, near Capetown, Humboldt County, Calif. *Range.*—Northwest humid coast belt of California, in Mendocino and Humboldt Counties; recorded from Capetown north to Eureka and interiorly to Cuddeback and Fair Oaks. Vertical range, from sea level up to at least 1,000 feet; zonal range, Transition.

Microtus californicus eximius R. Kellogg*

1918. *Microtus californicus eximius* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 12, Dec. 28, 1918.

Type Locality.—Lierly's Ranch, 4 miles south of Mount Sanhedrin, Mendocino County, Calif. Altitude, 2,340 feet. *Range.*—Northwestern California (excepting narrow coastal strip from Cape Mendocino northward), and northward to Roseburg and Drain in Rogue and Umpqua River Valleys in south-central Oregon; recorded at south from Olema, Marin County, east to Rumsey, Yolo County; thence north to Scott River and Mayten, in Siskiyou County; east at north across head of Sacramento Valley in vicinity of Red Bluff and Tehama to Manton and Turner's, in Tehama County; vertical range, from sea level (western Marin County) up to 7,500 feet (South Yolla Bolly Mountain, in western Tehama County); zonal range, Lower Sonoran up through Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 187, Sept. 26, 1933).

Microtus californicus aestuarinus R. Kellogg*

1918. *Microtus californicus aestuarinus* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 15, Dec. 28, 1918.

Type Locality.—Grizzly Island, Suisun Bay, Solano County, Calif. *Range.*—San Joaquin and Sacramento River Valleys, from Tulare Lake Basin, Kings County, north at least to Chico, Butte County, and east to near Galt, in San Joaquin County; also west along north side of San Francisco Bay at least to Petaluma, Sonoma County. Vertical range, from sea level up to almost 500 feet; zonal range, Lower and Upper Sonoran.

Microtus californicus mariposae R. Kellogg*

1918. *Microtus californicus mariposae* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 19, Dec. 28, 1918.

Type Locality.—A mile and three-quarters west of El Portal, Mariposa County, Calif. Altitude, 1,800 feet. *Range.*—Western foothill region of Sierra Nevada, from Minkler, Fresno County, north to Dutch Flat, Placer County. Vertical range, from 200 feet up to at least 3,800 feet; zonal range, Upper Sonoran and Transition.

Microtus californicus vallicola V. Bailey†*

1898. *Microtus californicus vallicola* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 89, Apr. 30, 1898.

Type Locality.—Lone Pine Creek, where it cuts through Alabama Hills, near Lone Pine, Inyo County, Calif. Altitude, 4,500 feet. (A. B. Howell, Journ. Mamm., vol. 4, No. 4, p. 266, Nov. 1, 1923.) *Range.*—Owens Valley region of California, east of Sierra Nevada, from Olancha, Inyo County, north to Benton, Mono County; recorded also from head of Willow Creek in north end of Panamint Mountains, Inyo County. Vertical range, from 3,700 feet up to at least 5,400 feet; zonal range, Lower and Upper Sonoran.

Microtus californicus scirpensis V. Bailey†*

1900. *Microtus scirpensis* V. Bailey, North Amer. Fauna No. 17, p. 38, June 6, 1900.

1918. *Microtus californicus scirpensis* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 24, Dec. 28, 1918.

Type Locality.—Spring near Shoshone, on Amargosa River, eastern Inyo County, Calif. Altitude, 1,560 feet. *Range.*—Known only from small marsh at spring near Shoshone on Amargosa River, in eastern Inyo County.

Microtus californicus kernensis R. Kellogg*

1918. *Microtus californicus kernensis* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 26, Dec. 28 ,1918.

Type Locality.—Fay Creek, near South Fork of Kern River, Kern County, Calif. Altitude, 4,100 feet. *Range.*—Drainage basin of Kern River, from Taylor Meadow, Tulare County, southwest to Buena Vista Lake, San Emigdio Creek, and Fort Tejon, in Kern County; vertical range, 290 feet up to 7,000 feet; zonal range, Lower Sonoran to Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 188, Sept. 26, 1933).

Microtus californicus mohavensis R. Kellogg

1918. *Microtus californicus mohavensis* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 29, Dec. 28, 1918.

Type Locality.—Victorville, San Bernardino County, Calif. Altitude, 2,700 feet. *Range.*—Moist bottomlands of Mohave River, on Mohave Desert; recorded from vicinities of Victorville and Oro Grande, in San Bernardino County. Vertical range, 2,500 feet up to 2,700 feet; zonal range, Lower Sonoran.

Microtus californicus stephensi von Bloeker

1932. *Microtus californicus stephensi* von Bloeker, Proc. Biol. Soc. Washington, vol. 45, p. 134, Sept. 9, 1932.

Type Locality.—Playa del Rey, Los Angeles County, Calif. *Range.*—Coastal marshes in Orange, Los Angeles, and Ventura Counties, Calif.; from Sunset Beach, Orange County, to Point Mugu, Ventura County.

Microtus californicus sanctidiegi R. Kellogg*

1918. *Microtus californicus neglectus* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 1, p. 31, Dec. 28, 1918. (Not of Jenyns, 1841.)

1922. *Microtus californicus sanctidiegi* R. Kellogg, Proc. Biol. Soc. Washington, vol. 35, p. 78, Mar. 20, 1922. (Substitute for *neglectus* R. Kellogg.)

Type Locality.—Escondido, San Diego County, Calif. Altitude, 640 feet. *Range.*—San Diegan subfaunal district from Mountain Spring and mouth of Tia Juana River, San Diego County, northwest to Gaviota Pass, Santa Barbara County, and north to Bluff Lake, San Bernardino Mountains, San Bernardino County, Calif. Vertical range, from near sea level (San Diego) up at least to 9,000 feet (Round Valley, San Jacinto Mountains); zonal range, Lower Sonoran to Canadian.

Microtus californicus hyperythrus Elliot*

1903. *Microtus californicus huperuthrus* Elliot, Field Columb. Mus. Publ. 74, Zool Ser., vol. 3, No. 10 (April), p. 161, May 7, 1903.

1903. *Microtus californicus hyperythrus* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, No. 12 (June), p. 218, Aug. 15, 1903. (A change of transliteration permitted by International Code of Zoological Nomenclature; see Proc. Biol. Soc. Washington, vol. 39, p. 89, July 7, 1926.)

1926. *Microtus californicus perplexabilis* Grinnell, Journ. Mamm., vol. 7, No. 3, p. 223, Aug. 9, 1926. (La Grulla, Baja California, México.)

Type Locality.—La Grulla, Sierra San Pedro Mártir, Baja California, México. (In the original account the type locality was said to be San Quintín, Baja California, but this designation was later declared to have been an "inexplicable inadvertence." See Elliot, Field Columb. Mus. Publ. 115, Zool. Ser., vol. 8, p. 292, Mar. 4, 1904.) *Range.*—Sierra San Pedro Mártir at altitudes varying from 6,000 to 8,500 feet.

Microtus californicus aequivocatus Osgood*

1928. *Microtus californicus aequivocatus* Osgood, Journ. Mamm., vol. 9, No. 1, p. 56, Feb. 9, 1928.

Type Locality.—San Quintín, on coast, west of Sierra San Pedro Mártir, Baja California, México. (See Grinnell, Journ. Mamm., vol. 7, No. 3, pp. 221–222, Aug. 9, 1926.) *Range.*—Coast region, at altitudes below 3,000 feet, near San Quintín.

Microtus californicus grinnelli Huey

1931. *Microtus californicus grinnelli* Huey, Trans. San Diego Soc. Nat. Hist., vol. 7, No. 6, p. 47, Dec. 19, 1931.

Type Locality.—Sangre de Cristo, lat. 31°52′ N., long. 116°06′ W., in Valle San Rafael, on western base of Sierra Juárez, Baja California, México. *Range.*—So far as known, in region immediately west of Sierra Juárez.

townsendii—group

Microtus townsendii townsendii (Bachman)*

1839. *Arvicola townsendii* Bachman, Journ. Acad. Nat. Sci. Philadelphia, vol. 8, pt. 1, p. 60.

1884. *Arvicola townsendii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)

1896. *M[icrotus] townsendi* Miller, North Amer. Fauna No. 12, p. 66, July 23, 1896.

Type Locality.—Columbia River; near mouth of Willamette River, on or near Wappatoo (or Sauvie) Island, Multnomah County, Oreg. (V. Bailey, North Amer. Fauna No. 17, p. 46, June 6, 1900). *Range.*—Coast area of extreme southwestern British Columbia, Washington, Oregon, and northwestern California; Port Moody, Huntingdon, and Chilliwack, in extreme southwestern British Columbia, south of lower Fraser River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 157, Jan. 24, 1947); lowlands of western Washington from Bellingham south to Puget Island (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 351, Apr. 9, 1948); Willamette, Umpqua, and Rogue River Valleys, west of Cascade Mountains, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 206, Aug. 29, 1936); and salt marshes on Humboldt Bay, near Eureka, Humboldt County, Calif. (A. B. Howell, Journ. Mamm., vol. 4, No. 1, p. 33, Feb. 9, 1923).

Microtus townsendii pugeti Dalquest*

1940. *Microtus townsendii pugeti* Dalquest, Murrelet, vol. 21, No. 1, p. 7, Apr. 30, 1940.

Type Locality.—Neck Point, northwest corner of Shaw Island, San Juan County, Wash. *Range.*—San Juan Islands, San Juan and Skagit Counties, Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 351, Apr. 9, 1948).

Microtus townsendii tetramerus (Rhoads)*

1894. *Arvicola (Tetramerodon) tetramerus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 283, Oct. 23, 1894.

1900. *Microtus tetramerus* V. Bailey, North Amer. Fauna No. 17, p. 47, June 6, 1900.

1936. *Microtus townsendii tetramerus* Hall, Murrelet, vol. 17, No. 1, p. 15, Mar. 28, 1936.

Type Locality.—Beacon Hill Park, Victoria, Vancouver Island, British Columbia, Canada. *Range.*—Known only from vicinity of Victoria, at southern end of Vancouver Island.

Microtus townsendii laingi Anderson and Rand

1943. *Microtus townsendii laingi* Anderson and Rand, Canadian Field-Nat., vol. 57, Nos. 4–5 (May), p. 74, Oct. 17, 1943.

Type Locality.—Port Hardy, on Queen Charlotte Strait, northeastern Vancouver Island, British Columbia, Canada. *Range.*—From northern part of Vancouver Island, south to Beaver Creek west of Alberni (Cape Scott, Hurst Island, Port Hardy, Sayward, Shushartie, upper Campbell River), British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 158, Jan. 24, 1947).

Microtus townsendii cummingi Hall

1936. *Microtus townsendii cummingi* Hall, Murrelet, vol. 17, No. 1 (January), p. 15, Mar. 28, 1936.

Type Locality.—Bowen Island, Howe Sound, British Columbia, Canada. *Range.*—Known from Bowen Island only.

longicaudus—group[42]

Microtus longicaudus longicaudus (Merriam) †*

1888. *Arvicola* (*Mynomes*) *longicaudus* Merriam, Amer. Nat., vol. 22, p. 934, October 1888.

1895. *Microtus* (*Mynomes*) *longicaudus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 266, Aug. 21, 1895.

1938. *Microtus longicaudus longicaudus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Custer, Black Hills, Custer County, S. Dak. Altitude, 5,500 feet. *Range.*—Boreal cap of Black Hills and down some cold streams well into Transition Zone.

Microtus longicaudus mordax (Merriam) †*

1891. *Arvicola* (*Mynomes*) *mordax* Merriam, North Amer. Fauna, No. 5, p. 61, July 30, 1891.

1897. *Microtus mordax* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 564.

1938. *Microtus longicaudus mordax* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Sawtooth (or Alturas) Lake, east base of Sawtooth Mountains, Blaine County, Idaho. Altitude, 7,200 feet. *Range.*—High mountains (Canadian and Hudsonian Zones) of New Mexico, including Capitan, Culebra, Jemez, Mimbres, Mogollon, Pecos, Sacramento, Taos, and White Mountains (V. Bailey, North Amer. Fauna No. 53 (December 1931), pp. 195–196, Mar. 1, 1932) northward through mountains of Colorado (Warren, The Mammals of Colorado, . . . , p. 230, 1942), Wyoming and Montana (V. Bailey, North Amer. Fauna No. 17, p. 50, June 6, 1900) to southwestern Alberta, intergrading with *vellerosus* in vicinity of Waterton Lakes National Park (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 159, Jan. 24, 1947); westward through Utah, Idaho and northern Nevada (Hall, Mammals of Nevada, p. 552, July 1, 1946) to Warner Mountains, Modoc County, and Butte Lake, Lassen County, in northeastern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 190, Sept. 26, 1933), eastern Oregon and Washington east of Cascade Range with exception of Blue Mountain area (Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 310, Nov. 17, 1952).

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[42] Rearranged by Goldman, Journ. Mamm., vol. 19, No. 4, pp. 491–492, Nov. 14, 1938.

Microtus longicaudus leucophaeus (J. A. Allen)*

1894. *Arvicola leucophaeus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 6, p. 320, Nov. 7, 1894.

1938. *Microtus longicaudus leucophaeus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Graham Mountains, Graham County, Ariz. *Range.*—Graham Mountains, south-central Arizona.

Microtus longicaudus alticola (Merriam)†*

1890. *Arvicola* (*Mynomes*) *alticolus* Merriam, North Amer. Fauna No. 3, p. 67, Sept. 11, 1890.

1938. *Microtus longicaudus alticola* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Little Spring, San Francisco Mountain, Coconino County, Ariz. Altitude, 8,200 feet. *Range.*—Boreal Zone of San Francisco Mountain, from 8,200 feet altitude up to timberline at 11,000 feet; and eastern Utah east of Green and Colorado Rivers (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 99, Feb. 15, 1951).

Microtus longicaudus baileyi Goldman†*

1938. *Microtus longicaudus baileyi* Goldman, Journ. Mamm., vol. 19, No. 4, p. 492, Nov. 14, 1938.

Type Locality.—Greenland Spring, head of Bright Angel Creek, Kaibab Plateau, Grand Canyon National Park, Coconino County, Ariz. Altitude, 8,000 feet. *Range.*—Apparently restricted to higher parts of Kaibab Plateau, northern Arizona.

Microtus longicaudus latus Hall*

1931. *Microtus mordax latus* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 12, Apr. 10, 1931.

1938. *Microtus longicaudus latus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Wisconsin Creek, Toyabe Mountains, Nye County, Nev. Altitude, 8,500 feet. *Range.*—Most of Nevada in Boreal Zone, excepting Sierra Nevada, Elko County, and northern parts of Humboldt and Washoe Counties; not found even in high mountains south of lat. 37°30′ N. (Hall, Mammals of Nevada, p. 552, July 1, 1946). Also found in western and south-central Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 371, Aug. 10, 1952) and presumably also in eastern California.

Microtus longicaudus bernardinus Merriam†*

1908. *Microtus mordax bernardinus* Merriam, Proc. Biol. Soc. Washington, vol. 21, p. 145, June 9, 1908.

1938. *Microtus longicaudus bernardinus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 492, Nov. 14, 1938.

Type Locality.—Dry Lake, San Bernardino Mountains, San Bernardino County, Calif. Altitude, 9,050 feet. *Range.*—Higher parts of San Bernardino Mountains, in San Bernardino County; vertical range, 7,500 feet (Bluff Lake) up to 9,050 feet (Dry Lake); zonal range, high Transition and Canadian (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 190, Sept. 26, 1933).

Microtus longicaudus sierrae R. Kellogg*

1922. *Microtus mordax sierrae* R. Kellogg, Univ. California Publ. Zool., vol. 21, No. 8, p. 288, Apr. 18, 1922.

1938. *Microtus longicaudus sierrae* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Tuolumne Meadows, Yosemite National Park, Tuolumne County, Calif. Altitude, 8,600 feet. *Range.*—In general, entire length of Sierra Nevada in California, and northwest to include Trinity Mountain region; recorded south from Goose Nest Mountain (near Oregon line) and South Fork of Salmon River, in Siskiyou County, to Taylor Meadow, in extreme southern Tulare County; also on White Mountains, in Mono and Inyo Counties (not typical); vertical range, from 2,000 feet (El Portal, Mariposa County) up to 11,500 feet (McAfee Meadow, White Mountains); zonal range, Transition to Hudsonian, even entering Arctic-Alpine in places (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 190, Sept. 26, 1933); and Sierra Nevada in western Nevada from vicinity of Lake Tahoe south to Desert Creek in Douglas County (Hall, Mammals of Nevada, p. 553, July 1, 1946).

Microtus longicaudus angusticeps V. Bailey†*

1898. *Microtus angusticeps* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 86, Apr. 30, 1898.

1938. *Microtus longicaudus angusticeps* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Crescent City, Del Norte County, Calif. *Range.*—Extreme northwest coast belt of California: recorded from Mendocino City and Fort Bragg, Mendocino County, north to Crescent City, Del Norte County; vertical range, below 300 feet; zonal range, Canadian, or (and) Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 191, Sept. 26, 1933); and coast of southwestern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 210, Aug. 29, 1936).

Microtus longicaudus abditus A. B. Howell*

1923. *Microtus mordax abditus* A. B. Howell, Journ. Mamm., vol. 4, No. 1, p. 36, Feb. 9, 1923.

1938. *Microtus longicaudus abditus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Walker's Ranch, Pleasant Valley, 8 miles south of Tillamook, Tillamook County, Oreg. *Range.*—Recorded from type locality, Netarts, and Blaine, in Tillamook County.

Microtus longicaudus macrurus Merriam†*

1898. *Microtus macrurus* Merriam, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 353, Oct. 4, 1898.

1938. *Microtus longicaudus macrurus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938. (See also Swarth, Proc. Biol. Soc. Washington, vol. 46, pp. 208–211, Oct. 26, 1933.)

Type Locality.—Lake Cushman, Olympic Mountains, Mason County, Wash. *Range.*—Olympic Mountains, coast region of western Washington, and Cascade Mountains, except in southeastern part (Dalquest, Univ. Kansas Publ. Mus.

Nat. Hist., vol 2, p. 354. Apr. 9, 1948); and northward along coast of British Columbia from Fraser River at least to Dean Channel, inland to Alta Lake, Hagensborg, Stuie, and Mount Brilliant, Rainbow Mountains (Anderson and Rand, Canadian Field-Nat., vol. 58, No. 1, p. 19, Apr. 1, 1944).

Microtus longicaudus halli Hayman and Holt*

1931. *Microtus mordax angustus* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 13, Apr. 10, 1931. (Not *Microtus angustus* Thomas, Proc. Zool. Soc. London, 1908, p. 108.)

1941. *Microtus mordax halli* Hayman and Holt, *in* Ellerman, The families and genera of living rodents, vol. 2, p. 603, Mar. 21, 1941. (Substitute for *angustus* Hall.)

1948. *Microtus longicaudus halli* Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 353, Apr. 9, 1948.

Type Locality.—Godman Springs, Blue Mountains, Columbia County, Wash. Altitude, 5,700 feet. *Range.*—Restricted to Blue Mountains of southeastern Washington.

Microtus longicaudus vellerosus J. A. Allen*

1899. *Microtus vellerosus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 7, Mar. 4, 1899.

1899. *Microtus cautus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p.7, Mar. 4, 1899. (Hells Gate, Liard River, British Columbia, Canada.)

1944. *Microtus longicaudus vellerosus* Anderson and Rand, Canadian Field-Nat., vol. 58, No. 1, p. 20, Apr. 1, 1944.

Type Locality.—Upper Liard River, British Columbia, Canada. *Range.*—Southern Yukon (Canol Road–Lapie River, Macmillan Pass, Nisutlin River, Ross River, Sheldon Lake) and adjacent parts of Alaska, southwestern Mackenzie District in Northwest Territories, and southward over British Columbia (excluding coastal mountains and interior dry belt) to Pend-d'Oreille, Rossland, and Yahk; on western slope of Rocky Mountains to Fernie and Morrissey and on Alberta side of Mountains to Jasper, Banff, Crowsnest, and Waterton Lakes where it intergrades with *mordax;* two isolated specimens from Great Plains region in southern Alberta just north of Sweet Grass Hills are somewhat larger and paler but are provisionally referred to *vellerosus* (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 159, Jan. 24, 1947).

Microtus longicaudus littoralis Swarth*

1933. *Microtus mordax littoralis* Swarth, Proc. Biol. Soc. Washington, vol. 46, p. 209, Oct. 26, 1933.

1938. *Microtus longicaudus littoralis* Goldman, Journ. Mamm., vol. 19, No. 4, p. 491, Nov. 14, 1938.

Type Locality.—Shakan, Prince of Wales Island, southeastern Alaska. *Range.*—Mainland coast and most of the islands of southeastern Alaska; along coast from Yakutat south at least to Bradfield Canal; and most of the islands of Alexander Archipelago that lie east of Chatham Strait and to the southward.

Microtus coronarius Swarth

1911. *Microtus coronarius* Swarth, Univ. California Publ. Zool., vol. 7, No. 2, p. 131, Jan. 12, 1911. (See also Swarth, Proc. Biol. Soc. Washington, vol. 46, p. 211, Oct. 26, 1933.)

Type Locality.—Egg Harbor, Coronation Island, Alaska. *Range.*—Recorded from Coronation, Forrester, and Warren Islands, Alaska.

mexicanus—group

Microtus mexicanus mexicanus (Saussure)*

1861. *Arvicola (Hemiotomys) mexicanus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 13, p. 3, January 1861.

1884. *Arvicola mexicanus* True, Proc. U. S. Nat. Mus. vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1897. [*Microtus*] *mexicanus* Trouessart, Catalogus Mammalium . . ., fasc. 3, p. 564.

Type Locality.—Volcán de Orizaba, Puebla, México. *Range.*—Eastern Puebla; intergrading to north and west with *phaeus.*

Microtus mexicanus salvus Hall*

1948. *Microtus mexicanus fundatus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, p. 426, Dec. 24, 1948.

Type Locality.—Mount Tancítaro, Michoacán, México. Altitude, 11,400 feet. *Range.*—Known only from Mount Tancítaro at elevations of 7,800 to 11,400 feet.

Microtus mexicanus fundatus Hall

1948. *Microtus mexicanus fundatus* Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, p. 425, Dec. 24, 1948.

Type Locality.—Three and one-half miles south of Pátzcuaro, Michoacán, México. Altitude, 7,900 feet. *Range.*—Known from vicinity of type locality only.

Microtus mexicanus phaeus (Merriam)†*

1892. *Arvicola phaeus* Merriam, Proc. Biol. Soc. Washington, vol. 7, p. 171, Sept. 29, 1892.

1900. *Microtus mexicanus phaeus* V. Bailey, North Amer. Fauna No. 17, p. 54, June 6, 1900.

Type Locality.—North slope of El Nevado de Colima, Jalisco, México. Altitude, 10,000 feet. *Range.*—Southern Jalisco and northward to northwestern Durango; eastwardly grading into *mexicanus.* Zonal range, Boreal and Transition.

Microtus mexicanus subsimus Goldman†*

1938. *Microtus mexicanus subsimus* Goldman, Journ. Mamm., vol. 19, No. 4, p. 494, Nov. 14, 1938.

Type Locality.—Sierra Guadalupe, southeastern Coahuila, México. *Range.*—High, isolated mountain ranges from southeastern Coahuila to southwestern Tamaulipas, México. Recorded also from near Galeana, Nuevo León, México (Hooper, Journ. Mamm., vol. 28, No. 1, p. 55, Feb. 17, 1947).

Microtus mexicanus madrensis Goldman†*

1938. *Microtus mexicanus madrensis* Goldman, Journ. Mamm., vol. 19, No. 4, p. 493, Nov. 14, 1938.

Type Locality.—Río Gavilán, 5 miles west of Colonia García, about 60 miles southwest of Casas Grandes, Chihuahua, México. Altitude, 6,700 feet. *Range.*—Sierra Madre of Chihuahua, and probably adjacent mountains of northeastern Sonora.

Microtus mexicanus mogollonensis (Mearns)*

1890. *Arvicola mogollonensis* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 283, Feb. 21, 1890.

1897. *Microtus mogollonensis* Miller, Proc. Biol. Soc. Washington, vol. 11, p. 68, Apr. 21, 1897.

1932. *Microtus mexicanus mogollonensis* V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 204, Mar. 1, 1932.

Type Locality.—Baker's Butte, Mogollon Mountains, Coconino County, Ariz. *Range.*—Plateau country of central Arizona, and yellow-pine forest area of Mogollon Mountain region of New Mexico; recorded from Mount Taylor, Datil, Mimbres, Magdalena, San Mateo, and Zuni Mountains (V. Bailey, North Amer. Fauna No. 53 (December 1931), pp. 204–205, Mar. 1, 1932).

Microtus mexicanus hualpaiensis Goldman†*

1938. *Microtus mexicanus hualpaiensis* Goldman, Journ. Mamm., vol. 19, No. 4, p. 493, Nov. 14, 1938.

Type Locality.—Hualpai Peak, Hualpai Mountains, Mohave County, Ariz. Altitude, 8,400 feet. *Range.*—Probably restricted to upper slopes of Hualpai Mountains.

Microtus mexicanus navaho Benson*

1934. *Microtus mexicanus navaho* Benson, Proc. Biol. Soc. Washington, vol. 47, p. 49, Feb. 9, 1934.

Type Locality.—Soldier Spring, east slope of Navaho Mountain, San Juan County, Utah. Altitude, about 8,800 feet. *Range.*—Navaho Mountain, southeastern Utah and northeastern Arizona (see also, Benson, Univ. California Publ. Zool., vol. 40, No. 14, p. 454, Dec. 31, 1935).

Microtus mexicanus guadalupensis V. Bailey†*

1902. *Microtus mexicanus guadalupensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 118, June 2, 1902.

Type Locality.—Guadalupe Mountains, El Paso County, Tex. Altitude, 7,800 feet. *Range.*—Transition Zone of Guadalupe, Sacramento, White, and Manzano Mountains east of Rio Grande Valley, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 206, Mar. 1, 1932); and Guadalupe Mountains of Texas.

Microtus fulviventer Merriam†*

1898. *Microtus fulviventer* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 106, Apr. 30, 1898.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,200 feet. *Range.*—Central part of State of Oaxaca.

xanthognathus—group

Microtus xanthognathus (Leach)*

1815. *Arvicola xanthognathus* Leach, Zool. Miscellany, vol. 1, p. 60.

1884. *Arvicola xanthognathus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1896. *M[icrotus] xanthognathus* Miller, North Amer. Fauna No. 12, p. 66, July 23, 1896.

Type Locality.—Hudson Bay. *Range.*—Northwestern Canada and Alaska, from northern Manitoba (Churchill and Nelson Rivers) to central Alberta, north to Arctic coast, east of Anderson River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 160, Jan. 24, 1947), and west to central Alaska (Osgood, North Amer. Fauna No. 30, p. 25, Oct. 7, 1909; Dixon, U. S. Nat. Park Service Fauna No. 3, p. 187, 1938).

chrotorrhinus—group [43]

Microtus chrotorrhinus chrotorrhinus (Miller) *

1894. *Arvicola chrotorrhinus* Miller, Proc. Boston Soc. Nat. Hist., vol. 26, p. 190, Mar. 24, 1894.

1896. *Microtus chrotorrhinus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 49, Mar. 9, 1896.

Type Locality.—Head of Tuckerman's Ravine, Mount Washington, Coos County, N. H. Altitude, 5,300 feet. *Range.*—Eastern Quebec (Mount Albert, Gaspé, altitude 3,500 feet) and central Quebec, northern New Brunswick (Grand River), and central Ontario west to east side of Lake Superior (Pancake Bay) and north side as far west as Schreiber (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 159, Jan. 24, 1947); southward to northern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 91, 1945), Maine, New Hampshire, and Adirondacks and Catskills in New York and Pennsylvania.

Microtus chrotorrhinus ravus Bangs*

1898. *Microtus chrotorrhinus ravus* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 188, Nov. 16, 1898.

Type Locality.—Black Bay, Strait of Belle Isle, Labrador, Canada. *Range.*—From type locality northward on Atlantic coast of Laborador to Port Manvers and Curlew Harbour (See also Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 159, Jan. 24, 1947).

Microtus chrotorrhinus carolinensis Komarek*

1932. *Microtus chrotorrhinus carolinensis* Komarek, Journ. Mamm., vol. 13, No. 2, p. 158, May 11, 1932.

Type Locality.—About 5 miles north of Smokemont, on a tributary of Bradley Fork, a small branch of Oconalufty River, Swain County, Great Smoky Mountains, N. C. Altitude, 3,200 feet. *Range.*—Wooded slopes above 3,000 feet in Great Smoky Mountains of Sevier County, Tenn., and Swain County, N. C.; and north to Randolph County, W. Va. (Handley and Patton, Wild mammals of Virginia, p. 174, 1947).

oeconomus—group

Microtus oeconomus operarius (Nelson) †*

1893. *Arvicola operarius* Nelson, Proc. Biol. Soc. Washington, vol. 8, p. 139, Dec. 28, 1893.

1897. [*Microtus*] *operarius* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 564.

1942. *M*[*icrotus*] *oec*[*onomus*] *operarius* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

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[43] Subspecies reviewed by E. V. Komarek, Journ. Mamm., vol. 13, No. 2, pp. 155–158, May 11. 1932.

1950. *M[icrotus] r[atticeps] operarius* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258. (Ognev, Comptes Rendus Acad. Sci. U.S.S.R., new ser., vol. 44, No. 4, p. 165, 1944, states that *Microtus oeconomus* Pallas, 1776, was based on a form of *Microtus* (*Stenocranius*) *gregalis*. The American forms previously referred to *oeconomus* were subsequently listed by Ognev (The mammals of Russia (U.S.S.R.) and Adjacent Countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258, 1950) as subspecies of *Microtus ratticeps*. For status see also Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 705, Nov. 19, 1951.)

Type Locality.—St. Michael, Norton Sound, Alaska. *Range.*—Coast of Alaska from Bristol Bay northward to Kotzebue Sound.

Microtus oeconomus innuitus Merriam†*

1900. *Microtus innuitus* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 21, Mar. 14, 1900.

1942. *[M]icrotus oec[onomus] innuitus* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 188, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] innuitus* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Northeast Cape, St. Lawrence Island, Bering Sea, Alaska. *Range.*—Known from St. Lawrence Island only.

Microtus oeconomus punukensis Hall and Gilmore

1932. *Microtus innuitus punukensis* Hall and Gilmore, Univ. California Publ. Zool., vol. 38, No. 9, p. 399, Sept. 17, 1932.

1942. *M[icrotus] oec[onomus] punukensis* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 188, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] punukensis* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Big Punuk Island, near east end of St. Lawrence Island, Bering Sea, Alaska. *Range.*—Big Punuk Island.

Microtus oeconomus amakensis Murie†*

1930. *Microtus amakensis* Murie, Journ. Mamm., vol. 11, No. 1, p. 74, Feb. 11, 1930.

1952. *Microtus oeconomus amakensis* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 309, Nov. 17, 1952.

Type Locality.—Amak Island, Bering Island, Alaska. *Range.*—Known from type locality only.

Microtus oeconomus unalascensis Merriam†*

1897. *Microtus unalascensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 222, July 15, 1897.

1942. *M[icrotus] oec[onomus] unalascensis* Zimmermann, Arch., Naturg., Berlin, n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] unalascensis* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Unalaska, Alaska. *Range.*—Unalaska Island.

Microtus oeconomus popofensis Merriam†*

1900. *Microtus unalascensis popofensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 22, Mar. 14, 1900.

1942. *M[icrotus] oec[onomus] popofensis* Zimmermann, Arch. Naturgesch., Berlin, n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] popofensis* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Popof Island, Shumagin Islands, Alaska. *Range.*—Known from Popof Island only.

Microtus oeconomus kadiacensis Merriam†*

1897. *Microtus kadiacensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 222, July 15, 1897.

1942. *M[icrotus] oec[onomus] kadiacensis* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] kadiacensis* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Kodiak Island, Alaska. *Range.*—From base of Alaska Peninsula (Osgood, North Amer. Fauna No. 24, p. 34, Nov. 23, 1904) eastward to mainland and islands in vicinity of Prince William Sound (Heller, Uni. California Publ. Zool., vol. 5, No. 11, p. 340, Mar. 5, 1910).

Microtus oeconomus elymocetes Osgood†*

1906. *Microtus elymocetes* Osgood, Proc. Biol. Soc. Washington, vol. 19, p. 71, May 1, 1906.

1942. *M[icrotus] oec[onomus] elymocetes* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 188, Sept. 10, 1942.

Type Locality.—East side of Montague Island, Prince William Sound, Alaska. *Range.*—Montague Island (Heller, Univ. California Publ. Zool., vol. 5, No. 11, p. 342, Mar. 5, 1910).

Microtus oeconomus yakutatensis Merriam†*

1900. *Microtus yakutatensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 22, Mar. 14, 1900.

1942. *M[icrotus] oec[onomus] yakutatensis* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] jakutatensis* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—North shore of Yakutat Bay, Alaska. *Range.*—Mainland of Alaska from Glacier Bay to Prince William Sound.

Microtus oeconomus sitkensis Merriam†*

1897. *Microtus sitkensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 221, July 15, 1897.

1942. *M[icrotus] oec[onomus] sitkensis* Zimmermann, Arch. Naturg., Berlin, n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

1950. *M[icrotus] r[atticeps] sitkensis* Ognev, The mammals of Russia (U.S.S.R.) and adjacent countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Sitka, Alaska. *Range.*—Baranof and Chichagof Islands, Alaska (Heller, Univ. California Publ. Zool., vol. 5, No. 2, p. 257, Feb. 18, 1909).

Microtus oeconomus gilmorei Setzer†*

1952. *Microtus oeconomus gilmorei* Setzer, Proc. Biol. Soc. Washington, vol. 65, p. 75, Apr. 25, 1952.

Type Locality.—Point Lay, lat. 69°46′ N., long. 163°04′ W., Alaska. *Range.*—Arctic slope of Alaska from Point Lay on west at least to Umiat on east and from Meade River on north at least to crest of Brooks Range on south.

Microtus oeconomus macfarlani Merriam†*

1900. *Microtus macfarlani* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 24, Mar. 14, 1900.

1909. *Microtus operarius endoecus* Osgood†, North Amer. Fauna No. 30, p. 23, Oct. 7, 1909. (Mouth of Charlie Creek, Yukon River, about 50 miles above Circle, Alaska. Regarded as identical with *macfarlani* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 157, Jan. 24, 1947).

1942. *M*[*icrotus*] *oec*[*onomus*] *macfarlani* Zimmermann, Arch. Naturg., n. F., vol. 11, No. 2, p. 187, Sept. 10, 1942.

1950. *M*[*icrotus*] *r*[*atticeps*] *macfarlani* Ognev, The mammals of Russia (U.S.S.R.) and Adjacent Countries, Publ. Acad. Sci. U.S.S.R., vol. 7, p. 258.

Type Locality.—Fort Anderson, Anderson River, Mackenzie District, Northwest Territories, Canada. *Range.*—From inland tundra areas of Yukon River Valley in eastern Alaska through central and northern Yukon (Canol Road at higher altitudes, Rose River and Macmillan Pass area in both Yukon and Northwest Territories); Lapierre House, Old Crow River, Firth River; to northern part of Mackenzie delta (Aklavik, Tuktuyaktok, Toker Point); Anderson River, Franklin Bay, Langton Bay, and south side of Coronation Gulf (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 157, Jan. 24, 1947).

Subgenus STENOCRANIUS Kastchenko

1901. *Stenocranius* Kastchenko, Annuaire Mus. Zool. Acad. Sci., St. Pétersbourg, vol. 6, p. 167. (Type, *Microtus slowzowi* Poljakoff.)

abbreviatus—group [44]

Microtus abbreviatus abbreviatus Miller†*

1899. *Microtus abbreviatus* Miller, Proc. Biol. Soc. Washington, vol. 13, p. 13, Jan. 31, 1899.

Type Locality.—Hall Island, Bering Sea, Alaska. *Range.*—Known from Hall Island only.

Microtus abbreviatus fisheri Merriam†*

1900. *Microtus abbreviatus fisheri* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 23, Mar. 14, 1900.

Type Locality.—St. Matthew Island, Bering Sea, Alaska. *Range.*—Known from St. Matthew Island only.

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[44] For inclusion of the *abbreviatus* group in the subgenus *Stenocranius*, see Nelson, Journ. Mamm., vol. 12, No. 3, p. 311, Aug. 24, 1931; and R. M. Gilmore, Abstracts of theses . . . , 1942, Cornell Univ., p. 289, 1943.

miurus—group

Microtus miurus miurus Osgood†*

1901. *Microtus miurus* Osgood, North Amer. Fauna No. 21, p. 64, Sept. 26, 1901.

Type Locality.—Head of Bear Creek, in mountains near Hope City, south side of Turnagain Arm, Cook Inlet, Alaska. *Range.*—Mountains on Kenai Peninsula, Alaska (Nelson, Journ. Mamm., vol. 12, No. 3, p. 311, Aug. 24, 1931).

Microtus miurus oreas Osgood†*

1907. *Microtus miurus oreas* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 61, Apr. 18, 1907.

Type Locality.—Toklat River, Alaskan Range, Alaska. *Range.*—From near Mount McKinley and easterly along Alaska Range to head of Jarvis Creek (Nelson, Journ. Mamm., vol. 12, No. 3, p. 311, Aug. 24, 1931).

Microtus miurus muriei Nelson†*

1931. *Microtus muriei* Nelson, Journ. Mamm., vol. 12, No. 3, p. 311, Aug. 24, 1931.

1950. *Microtus miurus paneaki* Rausch†, Journ. Washington Acad. Sci., vol. 40, No. 4, p. 135, Apr. 21, 1950. (Tolugak Lake, lat. 68°24′ N., long. 152°10′ W., Brooks Range, Alaska. Regarded as identical with *muriei* by Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 312, Nov. 17, 1952.)

1952. *Microtus miurus muriei* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 312, Nov. 17, 1952.

Type Locality.—Kutuk River, tributary to Alatna River, Endicott Mountains, Alaska. *Range.*—Endicott Mountains and Brooks Range, Alaska; recorded north to Umiat on Colville River, Alaska (Rausch, loc. cit.). Specimens recorded from Seward Peninsula (Quay, Journ. Mamm., vol. 32, No. 1, p. 95, Feb. 15, 1951) are regarded by Hall and Cockrum (loc. cit.) as resembling *muriei* more closely than *oreas*.

Microtus miurus andersoni Rand

1945. *Microtus andersoni* Rand, Nat. Mus. Canada Bull. 99, p. 42, 1945.

1952. *Microtus miurus andersoni* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 312, Nov. 17, 1952.

Type Locality.—Near headwaters of Little Keele River, 82 miles west of Mackenzie River on Canol Road, Mackenzie District, Northwest Territories, Canada. Altitude, 5,500 feet. *Range.*—Known from type locality only.

Microtus miurus cantator Anderson

1947. *Microtus cantator* Anderson, Nat. Mus. Canada, Bull. 102 (1946), p. 161, Jan. 24, 1947.

1952. *Microtus miurus cantator* Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 312, Nov. 17, 1952.

Type Locality.—Above timber line on north slope of Saint Elias Range near Tepee Lake at head of Harris Creek, which runs west-northwest into Genero River, which runs north into White River, a tributary of Yukon River; about 21 miles east of Alaska–Yukon international boundary; about lat. 61°35′ N., long. 140°22′ W.; about 18 miles southeast of Canyon City (on White River);

about 18 miles northeast of Mount Constantine and Klutlan Glacier; and about 45 miles northwest of northwest arm of Kluane Lake, Canada. *Range.*—Known from type locality, but singing mice are reported from region west of Kluane Lake, Yukon.

Genus PEDOMYS[45] Baird

1858. *Pedomys* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 517, July 14, 1858. (Type, *Arvicola austerus* Le Conte=*Hypudaeus ochrogaster* Wagner.)

Pedomys ochrogaster ochrogaster (Wagner)*

1842. *Hypudaeus ochrogaster* Wagner, *in* Schreber, Die Säugthiere . . . , Suppl., vol. 3, p. 592.

1853. *Arvicola austerus* Le Conte†, Proc. Acad. Nat. Sci. Philadelphia, vol. 6, p. 405. (Racine, Racine County, Wis.)

1858. *Arvicola* (*Pedomys*) *cinnamonea* Baird†, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 541, July 14, 1858. (Pembina, Minn.=Pembina County, N. Dak.)

1884. *Arvicola austerus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884.

1898. *Microtus* (*Pedomys*) *ochrogaster* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 459, Nov. 10, 1898.

1941. *Pedomys ochrogaster* Ellerman, The families and genera of living rodents, vol. 2, p. 620, Mar. 21, 1941.

Type Locality.—America. [Restricted to New Harmony, Posey County, Ind., by Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 157, Sept. 11, 1942.] *Range.*—From extreme southwestern Ohio, southeastern Indiana, and northwestern Kentucky, westward through Illinois to western Iowa and eastern Kansas (Bole and Moulthrop, op. cit., p. 158); northward to southwestern Michigan (Burt, Mammals of Michigan, p. 220, 1946), southern Wisconsin, and southeastern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 92, 1945); and southward to Reelfoot Lake and Clarksville in northern Tennessee (R. Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 285, Feb. 14, 1939).

Pedomys ochrogaster ohionensis (Bole and Moulthrop)*

1942. *Microtus ochrogaster ohionensis* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 155, Sept. 11, 1942.

Type Locality.—Symmes Creek, 2 miles north of Chesapeake, Lawrence County, Ohio. *Range.*—Central southern and southwestern Ohio, north to central western Ohio (Shelby County), and in less typical form to central eastern Indiana (Jay County). Recorded also from Morehead, Rowan County, eastern Kentucky (Barbour, Journ. Mamm., vol. 33, No. 3, p. 399, Aug. 19, 1952).

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[45] Regarded as a valid genus by Ellerman, The families and genera of living rodents, vol. 2, p. 620, Mar. 21, 1941. Subsequently regarded as a valid subgenus of *Pitymys* by Ellerman, *op. cit.*, vol. 3, pt. 1, pp. 111, 130, March 1949. See also Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 681, Nov. 19, 1951.

Pedomys ochrogaster minor (Merriam) †*

1888. *Arvicola austerus minor* Merriam, Amer. Nat., vol. 22, p. 600, July 1888.

1900. *Microtus minor* V. Bailey, North Amer. Fauna No. 17, p. 75, June 6, 1900.

1941. *Pedomys minor* Ellerman, The families and genera of living rodents, vol. 2, p. 621, Mar. 21, 1941.

1942. *Microtus ochrogaster minor* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 160, Sept. 11, 1942.

Type Locality.—Bottineau, at base of Turtle Mountains, Bottineau County, N. Dak. *Range.*—Eastern North Dakota (V. Bailey, North Amer. Fauna No. 49 (1926), p. 99, Jan. 8, 1927) and western and northern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 92, 1945) northward to Edmonton in central Alberta, and Dundurn and Indian Head in Saskatchewan, Canada (Bole and Moulthrop, loc. cit.).

Pedomys ochrogaster haydenii (Baird) †*

1858. *Arvicola* (*Pedomys*) *haydenii* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 543, July 14, 1858.

1907. *Microtus ochrogaster haydeni* Osgood, Proc. Biol. Soc. Washington, vol. 20, p. 48, Apr. 18, 1907.

1941. *Pedomys haydenii* Ellerman, The families and genera of living rodents, vol. 2, p. 621, Mar. 21, 1941.

Type Locality.—Fort Pierre, Stanley County, S. Dak. *Range.*—Semiarid plains region of North Dakota west of Missouri River (V. Bailey, North Amer. Fauna No. 49 (1926), p. 98, Jan. 8, 1927), southeastern Montana (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 160, Sept. 11, 1942), Wyoming, Nebraska and northwestern Kansas (Hibbard, Trans. Kansas Acad. Sci. vol. 47, p. 82, September 1944); westward to central Colorado (Warren, The mammals of Colorado, . . ., p. 231, 1942).

Pedomys ochrogaster taylori Hibbard and Rinker

1943. *Microtus ochrogaster taylori* Hibbard and Rinker, Univ. Kansas Sci. Bull., vol. 29, pt. 2, No. 4, p. 256, Oct. 15, 1943.

Type Locality.—Bog area on the farm of H. H. Hildebrand, a mile and a half north of Fowler, Meade County, Kan. *Range.*—Southwestern Kansas; specimens recorded from northern Oklahoma may represent this subspecies (see Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 126, July 1939).

Pedomys ludovicianus V. Bailey†*

1900. *Microtus ludovicianus* V. Bailey, North Amer. Fauna No. 17, p. 74, June 6, 1900.

1941. *Pedomys ludovicianus* Ellerman, The families and genera of living rodents, vol. 2, p. 621, March 21, 1941.

Type Locality.—Iowa, Calcasieu Parish, La. *Range.*—Coast prairie of southwestern Louisiana; recorded also from Sour Lake, Tex. (V. Bailey, North Amer. Fauna No. 25, p. 119, Oct. 24, 1905).

Genus PITYMYS[46] McMurtrie (pine-mice)

1831. *Pitymys* McMurtrie, The animal kingdom . . . by the Baron Cuvier, vol. 1, p. 434, footnote. (Type, *Psammomys pinetorum* Le Conte.)

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[46] Revised by V. Bailey, North Amer. Fauna No. 17, pp. 62–67, June 6, 1900.

Pitymys pinetorum pinetorum (Le Conte)*

1830. *Psammomys pinetorum* Le Conte, Ann. Lyc. Nat. Hist., New York, vol. 3, p. 133.

1884. *Arvicola pinetorum* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884. (Part.)

1912. *Pitymys pinetorum pinetorum* Miller, U. S. Nat. Mus. Bull. 79, p. 228, Dec. 31, 1912.

Type Locality.—Pine forests of Georgia, probably on the Le Conte plantation, near Riceboro, Liberty County. *Range.*—Southern half of Alabama (recorded from Autaugaville, Prattville, Greensboro, and Ashford by A. H. Howell, North Amer. Fauna No. 45, p. 54, Oct. 21, 1921), Georgia, South and North Carolina, and southern Virginia (recorded from Patrick to Prince George Counties by Handley and Patton, Wild mammals of Virginia, p. 175, 1947).

Pitymys pinetorum auricularis (V. Bailey)†*

1898. *Microtus pinetorum auricularis* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 90, Apr. 30, 1898.

1912. *Pitymys pinetorum auricularis* Miller, U. S. Nat. Mus. Bull. 79, p. 229, Dec. 31, 1912.

Type Locality.—Washington, Adams County, Miss. *Range.*—Kerr County, south-central Texas (Bryant, Journ. Mamm., vol. 22, No. 2, p. 202, May 13, 1941), Louisiana (recorded from Mansfield, Columbia, Bryceland, and Baton Rouge by Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 247, Nov. 22, 1943), northern Mississippi, northern Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 55, Oct. 21, 1921) northward through Tennessee (R. Kellogg, Proc. U. S. Nat. Mus., vol. 86, p. 287, Feb. 14, 1939), Kentucky (Hamilton, Journ. Mamm., vol. 11, No. 3, p. 309, Aug. 9, 1930; Hibbard, Journ. Mamm., vol. 16, No. 4, p. 329, Nov. 15, 1935; Welter and Sollberger, Journ. Mamm., vol. 20, No. 1, p. 81, Feb. 15, 1939) to extreme southern Illinois (Necker and Hatfield, Bull. Chicago Acad. Sci., vol 6, No. 3, p. 55, May 15, 1941), southern Indiana (Handley, Journ. Washington Acad. Sci., vol. 12, No. 5, p. 153, May 15, 1952), and southern Ohio (Bole, Journ. Mamm., vol. 19, No. 3, p. 377, Aug. 18, 1938).

Pitymys pinetorum scalopsoides (Audubon and Bachman)*

1841. *Arvicola scalopsoides* Audubon and Bachman, Proc. Acad. Nat. Sci. Philadelphia, vol. 1 (1841–1843), p. 97, October 1841.

1896. *Microtus pinetorum scalopsoides* Batchelder, Proc. Boston Soc. Nat. Hist., vol. 27, p. 187, October 1896.

1912. *Pitymys pinetorum scalopsoides* Miller, U. S. Nat. Mus. Bull. 79, p. 229, Dec. 31, 1912.

Type Locality.—Long Island, N. Y. *Range.*—From Middlesex County near London, and Elgin County near Eden, 7 miles south and east of Tillsonburg, in southern Ontario, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 163, Jan. 24, 1947), Vermont (F. L. Osgood, Journ. Mamm., vol. 17, No. 3, p. 291, Aug. 17, 1936, and vol. 19, No. 4, p. 439, Nov. 14, 1938), New Hampshire, Massachusetts (Crane, Journ. Mamm., vol. 12, No. 3, p. 271, Aug. 24, 1931; Johnson, Journ. Mamm., vol. 16, No. 1, p. 68, Feb. 14, 1935) southward through Connecticut and New York to Virginia (Handley and Patton, Wild mammals of

Virginia, p. 176, 1947); and westward through West Virginia (R. Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 469, Oct. 7, 1937) and northeastern and central Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 161, Sept. 11, 1942) to Lower Peninsula of Michigan (Burt, Mammals of Michigan, p. 225, 1946) and Illinois (Necker and Hatfield, Bull. Chicago Acad. Sci., vol. 6, No. 3, p. 55, May 15, 1941). Recorded also from Prairie du Sac, Columbia County, and Blue Mounds, Vermont, and Westpoint, Dane County, in southern Wisconsin (Hall and Cockrum, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 23, p. 307, Nov. 17, 1952).

Pitymys pinetorum carbonarius Handley†*

1952. *Pitymys pinetorum carbonarius* Handley, Journ. Washington Acad. Sci., vol. 42, No. 5, p. 152, May 28, 1952.

Type Locality.—Eubank, Pulaski County, Ky. *Range.*—Austral and Transition Zones of southwestern Virginia, northeastern Tennessee, eastern Kentucky, extreme southeastern Ohio, and probably southern West Virginia (east to Russell County, Va., and Carter County, Tenn.; south to Jefferson and Campbell Counties, Tenn.; west to Pulaski County, Ky.; and north to Lawrence County, Ohio).

Pitymys pinetorum schmidti Jackson†*

1941. *Pitymys pinetorum schmidti* Jackson, Proc. Biol. Soc. Washington, vol. 54, p. 201, Dec. 8, 1941.

Type Locality.—Worden Township, Clark County, Wis. *Range.*—Known from Clark County only.

Pitymys pinetorum nemoralis (V. Bailey)†*

1898. *Microtus pinetorum nemoralis* V. Bailey, Proc. Biol. Soc. Washington, vol. 12, p. 89, Apr. 30, 1898.

1912. *Pitymys nemoralis* Miller, U. S. Nat. Mus. Bull. 79, p. 229, Dec. 31, 1912.

1941. *Pitymys pinetorum nemoralis* Jackson, Proc. Biol. Soc. Washington, vol. 54, p. 202, Dec. 8, 1941.

Type Locality.—Stilwell, Adair County, Okla. *Range.*—Eastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 126, July 1939) and central Arkansas (Dellinger and Black, Journ. Mamm., vol. 21, No. 2, p. 190, May 16, 1940) northward through eastern Kansas (Black, Kansas State Board Agric. Thirtieth Biennial Report (1935–1936), p. 202, 1937), Missouri and Iowa (Scott, Iowa State College Journ. Sci., vol. 12, No. 1, p. 78, October 1937) to Lynxville in west-central Wisconsin (Jackson, loc. cit.) and Houston and Fillmore Counties in southern Minnesota.

Pitymys parvulus A. H. Howell†*

1916. *Pitymys parvulus* A. H. Howell, Proc. Biol. Soc. Washington, vol. 29, p. 83, Apr. 4, 1916.

Type Locality.—Ocala [=Lynne Planting Station of U. S. Forest Service, near Lynne, according to A. H. Howell, Journ. Mamm., vol. 15, No. 1, p. 72, Feb. 15, 1934], Marion County, Fla. *Range.*—Recorded from type locality, Gainesville, and Quincy in Gadsden County, Fla. (Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 120, 1937).

Pitymys quasiater (Coues) *

1874. *Arvicola* (*Pitymys*) *pinetorum* var. *quasiater* Coues, Proc. Acad. Nat. Sci. Philadelphia, vol. 26, p. 191, Dec. 15, 1874.

1884. *Arvicola quasiater* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884.

1912. *Pitymys quasiater* Miller, U. S. Nat. Mus. Bull. 79, p. 229, Dec. 31, 1912.

Type Locality.—Jalapa, Veracruz, México. *Range.*—Central Veracruz and eastern Puebla, on east slope of mountains (altitude, 4,000 to 5,000 feet). Zonal range, Humid Tropical and lower edge of Lower Austral. Recorded also at Apetsco, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 11, July 10, 1950).

Genus LAGURUS[47] Gloger

1841. *Lagurus* Gloger, Gemeinnütziges Hand- und Hilfsbuch der Naturgeschichte, vol. 1, p. 97. (Type, *Lagurus migratorius* Gloger=*Mus lagurus* Pallas.)

Subgenus LEMMISCUS[48] Thomas

1912. *Lemmiscus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 9, p. 401, April 1912. (Type, *Arvicola curtata* Cope.)

Lagurus curtatus curtatus (Cope)†*

1868. *Arvicola curtata* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 20, p. 2.

1884. *Arvicola austerus curtatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 597, Nov. 29, 1884. (Part.)

1912. *Lagurus* (*Lemmiscus*) *curtatus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 9, p. 401, April 1912.

Type Locality.—Pigeon Spring, Mount Magruder, Esmeralda County, Nev., near boundary between Inyo County, Calif., and Esmeralda County. *Range.*—East-central border of California, in Mono and Inyo Counties; recorded from Mono Mills near Mono Lake southeast to Inyo Mountains; vertical range, from 6,550 feet (west of Benton) up to 10,500 feet (Big Prospector Meadow, White Mountains); zonal range, chiefly Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 191, Sept. 26, 1933); and southwestern Nevada from Pahute Mesa northwest to southern Washoe County (Hall, Mammals of Nevada, p. 560, July 1, 1946).

Lagurus curtatus pallidus (Merriam)†*

1888. *Arvicola* (*Chilotus*) *pallidus* Merriam, Amer. Nat., vol. 22, p. 704, August 1888.

1912. *L*[*agurus*] *pallidus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 9, p. 401, April 1912.

1941. *Lemmiscus curtatus pallidus* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 70, July 31, 1941.

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[47] American forms revised by V. Bailey, North Amer. Fauna No. 17, pp. 67–70, June 6, 1900.

[48] Subgenus *Lemmiscus* raised to generic status by Davis, The Recent mammals of Idaho, p. 325, Apr. 5, 1939, the genus *Lagurus* being considered as restricted to Old World forms. See also Goldman, Proc. Biol. Soc. Washington, vol. 54, pp. 69–71, July 31, 1941. Regarded as a valid subgenus by Ellerman, The families and genera of living rodents, vol. 2, p. 633, Mar. 21, 1941, and by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 359, Apr. 9, 1948.

Type Locality.—Fort Buford, Williams County, N. Dak. *Range.*—Restricted to local areas of sagebrush and shortgrass on high plains of semiarid division of Transition Zone at elevations of 2,000 to 3,400 feet from northwestern North Dakota (recorded from Fort Buford and Glen Ullin by V. Bailey, North Amer. Fauna No. 49 (Dec. 1926), p. 101, Jan. 8, 1927), eastern Montana, southwestern Saskatchewan (recorded from Battle Creek, Cypress Lake, Eastend, Frenchman River, Prairie Dog Buttes, Rocky Creek, Fife Lake, Big Muddy Coulee, and Big Muddy Lake by Soper, Journ. Mamm., vol. 27, No. 2, p. 148, May 14, 1946), and southern Alberta as far north as Calgary and Little Sandhill Creek, Red Deer River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 164, Jan. 24, 1947).

Lagurus curtatus pauperrimus (Cooper) †*

1868. *Arvicola pauperrima* Cooper, Amer. Nat., vol. 2, p. 535, December 1868.

1891. *Arvicola pauperrimus* Merriam, North Amer. Fauna No. 5, p. 64, July 30, 1891.

1912. *L[agurus] pauperrimus* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 9, p. 401, April 1912.

1913. *Microtus* (*Lagurus*) *curtatus artemisiae* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 32, p. 14, Mar. 7, 1913. (Ironside, Malheur County, Oreg. Altitude, 4,000 feet. Regarded as identical with *pauperrimus* by V. Bailey, North Amer. Fauna No. 55 (June), p. 214, Aug. 29, 1936. See also Hall, Mammals of Nevada, p. 560, July 1, 1946.)

1941. *Lemmiscus curtatus pauperrimus* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 70, July 31, 1941.

1946. [*Lagurus curtatus*] *pauperrimus* Hall, Mammals of Nevada, p. 560, July 1, 1946.

Type Locality.—Plains of the Columbia, near Snake River, southwestern Washington. (Probably from Bunchgrass Hills near Wallula [Old Fort Walla Walla], Walla Walla County, according to Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 359, Apr. 9, 1948.) *Range.*—In Washington known only from type locality and from Badger Mountains, 8 miles southwest of Waterville (Dalquest, loc. cit.); and from sagebrush country of eastern Oregon in Transition and upper edge of Sonoran Zones; recorded from Bakeoven, Antelope, Steens Mountains, Cedar Mountains, Skull Spring, McDermitt, Disaster, Creston, Ironside, Fort Rock and Rock Creek north of Hart Mountain (V. Bailey, North Amer. Fauna No. 55 (June), p. 214, Aug. 29, 1936), and from 36 miles west of Burns (A. W. Moore, Journ. Mamm., vol. 24, No. 2, p. 188, June 7, 1943).

Lagurus curtatus intermedius (Taylor) *

1911. *Microtus* (*Lagurus*) *intermedius* Taylor, Univ. California Publ. Zool., vol. 7, No. 7, p. 253, June 24, 1911.

1912. *Lagurus intermedius* Miller, U. S. Nat. Mus. Bull. 79, p. 228, Dec. 31, 1912.

1934. *Lagurus curtatus intermedius* Borell and Ellis, Journ. Mamm., vol. 15, No. 1, p. 35, Feb. 15, 1934.

Type Locality.—Head of Big Creek, Pine Forest Mountains, Humboldt County, Nev. Altitude, 8,000 feet. *Range.*—Nevada north of lat. 38°30′ N., except southwestern part (Hall, Mammals of Nevada, p. 560, July 1, 1946); Madeline Plains, 6 miles east of Ravendale, Lassen County, Calif. (Orr. Journ. Mamm., vol. 13, No. 2, p. 167, May 11, 1932), southeastern Oregon, southern Idaho, and western Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 379, August 10, 1952).

Lagurus curtatus levidensis (Goldman) †*

1941. *Lemmiscus curtatus levidensis* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 70, July 31, 1941.

1951. *Lagurus curtatus levidensis* Kelson, Journ. Mamm., vol. 32, No. 1, p. 114, Feb. 15, 1951.

Type Locality.—Sandhills 5 miles east of Canadian River, at west base of Medicine Bow Range, east of Walden, North Park, Jackson County, Colo. Altitude, about 8,000 feet. *Range.*—Rocky Mountain region, from northwestern Colorado northwest through northeastern Utah (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 100, Feb. 15, 1951), and southwestern Wyoming to eastern Idaho (Salmon River Mountains) and southwestern Montana.

Genus NEOFIBER True

1884. *Neofiber* True, Science, vol. 4, p. 34, July 11, 1884. (Type, *Neofiber alleni* True.)

Neofiber alleni alleni True†*

1884. *Neofiber alleni* True, Science, vol. 4, p. 34, July 11, 1884.

1884. *Neofiber alleni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884.

Type Locality.—Georgiana, Brevard County, Fla. *Range.*—Possibly confined to salt-water regions on east coast of Florida; recorded from Canaveral, Georgiana, Oak Lodge on East Peninsula opposite Micco, and Titusville in Brevard County, and Eden in St. Lucie County (Sherman, Proc. Florida Acad. Sci. vol. 1 (1936), p. 120, 1937).

Neofiber alleni nigrescens A. H. Howell†*

1920. *Neofiber alleni nigrescens* A. H. Howell, Journ. Mamm., vol. 1, No. 2 (February), p. 79, Mar. 2, 1920.

Type Locality.—Ritta, south shore of Lake Okeechobee, Palm Beach County, Fla. *Range.*—Fresh-water prairies of Florida (recorded from Alachua, Putnam, and Volusia Counties by Sherman, Proc. Florida Acad. Sci., vol. 1 (1936), p. 120, 1937) northward to Okefenokee Swamp, southeastern Georgia (Harper, Proc. Boston Soc. Nat. Hist., vol. 38, No. 7, p. 360, March 1927). Recorded also from Woodbine, Camden County, Georgia (Schantz and Jenkins, Journ. Mamm., vol. 31, No. 4, p. 460, Nov. 21, 1950).

Neofiber alleni struix Schwartz*

1952. *Neofiber alleni struix* Schwartz, Nat. Hist. Misc. Chicago Acad. Sci. No. 101, p. 1, Feb. 15, 1952.

Type Locality.—Twenty-one miles west of Miami, Dade County, Fla. *Range.*—Everglades in region of type locality and presumably over remainder of tip of Florida Peninsula.

Genus ONDATRA[49] Link (muskrats)

1795. *Ondatra* Link, Beyträge zur Naturgeschichte, vol. 1, pt. 2, p. 76. (Type by tautonymy, *Castor zibethicus* Linnaeus. See International Commission on Zoological Nomenclature, Opinion 55, Smithsonian Inst. Spec. Publ. 2169, pp. 126–127, May 12, 1913.)

Ondatra obscurus (Bangs) *

1894. *Fiber obscurus* Bangs, Proc. Biol. Soc. Washington, vol. 9, p. 133, Sept. 15, 1894.

1912. *Ondatra obscurus* Miller, U. S. Nat. Mus. Bull. 79, p. 230, Dec. 31, 1912.

Type Locality.—Codroy, Newfoundland. *Range.*—Newfoundland.

Ondatra zibethicus zibethicus (Linnaeus) *

1766. [*Castor*] *zibethicus* Linnaeus, Systema naturae, ed. 12, vol. 1, p. 79.

1795. [*Ondatra*] *zibethicus* Link, Beyträge zur Naturgeschichte, vol. 1, pt. 2, p. 76.

1884. *Fiber zibethicus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 596, Nov. 29, 1884.

1912. *Ondatra zibethica zibethica* Miller, U. S. Nat. Mus. Bull. 79, p. 230, Dec. 31, 1912.

1940. *Ondatra z*[*ibethicus*] *zibethicus* Davis and Lowery, Journ. Mamm., vol. 21, No. 2, p. 212, May 14, 1940.

Type Locality.—Eastern Canada. (Specimens from eastern New Brunswick assumed to be typical by Hollister, North Amer. Fauna No. 32, p. 16, Apr. 29, 1911.) *Range.*—From New Brunswick, Quebec, Ontario, and presumably southeastern Manitoba, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 164, Jan. 24, 1947), south to northern Georgia except along Atlantic seaboard south of Delaware Bay, Alabama as far as Clarke, Lowndes, and Pike Counties (A. H. Howell, North Amer. Fauna No. 45, p. 55, Oct. 28, 1921), northern Mississippi, northern Arkansas (Black, Journ. Mamm., vol. 17, No. 1, p. 34, Feb. 17, 1936), and southeastern Kansas (Hibbard, Trans. Kansas Acad, Sci., vol. 47, p. 83, September 1944); westward to Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 93, 1945) and Iowa east of Des Moines River (Scott, Iowa State College Journ. Sci., vol. 12, No. 1, p. 79, October 1937).

Ondatra zibethicus macrodon (Merriam) †*

1897. *Fiber macrodon* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 143, May 13, 1897.

1911. *F*[*iber*] *niger* Brass, Aus dem Reiche der Pelze, Berlin, p. 604. (New Jersey and Delaware.)

1912. *Ondata zibethica macrodon* Miller, U. S. Nat. Mus. Bull. 79, p. 230, Dec. 31, 1912.

Type Locality.—Lake Drummond, Dismal Swamp, Norfolk County, Va. *Range.*—Middle Atlantic coast region of United States, from Delaware Bay to Pamlico Sound; inland to Washington, D. C., all counties east of Blue Ridge

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[49] Revised (under name *Fiber*) by Hollister, North Amer. Fauna No. 32, pp. 1–47, Apr. 29, 1911. For masculine gender of *Ondatra* see Davis and Lowery, Journ. Mamm., vol. 21, No. 2, p. 213, May 14, 1940.

Mountains in Virginia (Handley and Patton, Wild mammals of Virginia, p. 177, 1947), and to Raleigh, N. C.

Ondatra zibethicus albus (Sabine) *

1823. *Fiber zibethicus-albus* Sabine *in* Franklin, Narative of a journey to the shores of the Polar Sea in . . . 1819–22, p. 660.

1902. *Fiber zibethicus hudsonius* Preble†, North Amer. Fauna No. 22, p. 53, Oct. 31, 1902. (Fort Churchill, Keewatin [=Manitoba].)

1911. *Fiber zibethicus albus* Hollister, North Amer. Fauna No. 32, p. 20, Apr. 29, 1911.

1912. *Ondatra zibethica alba* Miller, U. S. Nat. Mus. Bull. 79, p. 231, Dec. 31, 1912.

Type Locality.—Cumberland House, Saskatchewan, Canada. *Range.*—Waters draining into Hudson Bay from the west, in eastern Saskatchewan and Manitoba; north to Barren Grounds.

Ondatra zibethicus aquilonius (Bangs) *

1899. *Fiber zibethicus aquilonius* Bangs, Proc. New England Zool. Club, vol. 1, p. 11, Feb. 28, 1899.

1912. *Ondatra zibethica aquilonia* Miller, U. S. Nat. Mus. Bull. 79, p. 230, Dec. 31, 1912.

Type Locality.—Rigolet, Hamilton Inlet, Labrador, Canada. *Range.*—Labrador from Strait of Belle Isle northward (Black Bay, Hamilton Inlet, Lance au Loup), and eastern part of Ungava Peninsula, Quebec, north to Chimo (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 164, Jan. 24, 1947).

Ondatra zibethicus spatulatus (Osgood) †*

1900. *Fiber spatulatus* Osgood, North Amer. Fauna No. 19, p. 36, Oct. 6, 1900

1912. *Ondatra zibethica spatulata* Miller, U. S. Nat. Mus. Bull. 79, p. 231 Dec. 31, 1912.

Type Locality.—Lake Marsh, Yukon, Canada. *Range.*—Northwestern North America, from Kowak River (east of Kotzebue Sound) and Yukon Valley in Alaska, through lower parts of Yukon to Arctic coast, north to Richards Island in Mackenzie delta, Northwest Territories, south and east to Anderson River, Great Bear and Great Slave Lakes, and south into northeastern British Columbia and north-central Alberta; probably also in northwestern Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 165, Jan. 24, 1947). Recorded also from Yakutat Bay and Revillagigedo Island, southeast Alaska (Swarth, Univ. California Publ. Zool., vol. 7, No. 2, p. 133, Jan. 12, 1911), Sergief Island at mouth of Stikine River (Swarth, Univ. California Publ. Zool., vol. 24, No. 2, p. 179, June 17, 1922), and Kispiox Valley, a tributary of Skeena River, northwestern British Columbia (Swarth, Univ. California Publ. Zool., vol. 24, No. 3, p. 379, Jan. 24, 1924).

Ondatra zibethicus zalophus (Hollister) †*

1910. *Fiber zibethicus zalophus* Hollister, Proc. Biol. Soc. Washington, vol. 23, p. 1, Feb. 2, 1910.

1912. *Ondatra zibethica zalophus* Miller, U. S. Nat. Mus. Bull. 79, p. 231, Dec. 31, 1912.

Type Locality.—Becharof Lake, Alaska Peninsula, Alaska. *Range.*—Alaska Peninsula, north of Nushagak and east to head of Cook Inlet.

Ondatra zibethicus osoyoosensis (Lord)*

1863. *Fiber osoyoosensis* Lord, Proc. Zool. Soc. London, 1863, pt. 2, p. 97, October 1863.

1910. *F[iber] z[ibethicus] osoyoosensis* Hollister, Proc. Biol. Soc. Washington, vol. 23, p. 1, Feb. 2, 1910.

1912. *Ondatra zibethica osoyoosensis* Miller, U. S. Nat. Mus. Bull. 79, p. 231, Dec. 31, 1912.

Type Locality.—Lake Osoyoos, on British Columbia–Washington boundary at head of Okanagan River, British Columbia, Canada. *Range.*—From southern British Columbia southward through Washington except southwestern part (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 363, Apr. 9, 1948) to Columbia, Snake, Deschutes, John Day, Malheur, and Owyhee drainages and isolated Malheur Lake Basin in Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 215, Aug. 29, 1936); southward through Idaho to streams draining into Snake River in northern Elko County, Nevada (Hall, Mammals of Nevada, p. 566, July 1, 1946); and southward in Rocky Mountains through western Montana, Wyoming, and Colorado (Warren, The mammals of Colorado, . . ., p. 234, 1942) to San Juan and Rio Grande Valleys in northern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 207, Mar. 1, 1932); westward into San Juan County, Utah (Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 6, Apr. 10, 1931). Recorded also from northern and central Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 356, Aug. 10, 1952).

Ondatra zibethicus occipitalis (Elliot)*

1903. *Fiber occipitalis* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 162, May 2, 1903.

1912. *Ondatra zibethica occipitalis* Miller, U. S. Nat. Mus. Bull. 79, p. 231, Dec. 31, 1912.

Type Locality.—Florence, Lane County, Oreg. *Range.*—Southwestern corner of Washington, extending north to Aberdeen and east to Cathlamet (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 363, Apr. 9, 1948); Willamette Valley and limited section of coast from Florence to Coquille, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 218, Aug. 29, 1936).

Ondatra zibethicus mergens (Hollister)†*

1910. *Fiber zibethicus mergens* Hollister, Proc. Biol. Soc. Washington, vol. 23, p. 1, Feb. 2, 1910.

1912. *Ondatra zibethica mergens* Miller, U. S. Nat. Mus. Bull. 79, p. 231, Dec. 31, 1912.

Type Locality.—Fallon, Churchill County, Nev. *Range.*—Drainages of Smoke Creek, and Truckee, Carson, Walker, Humboldt, and Reese Rivers in northern half of Nevada (Hall, Mammals of Nevada, p. 567, July 1, 1946); and larger streams and fresh-water lakes, tributary to Great Basin, along extreme eastern border of California; recorded from Eagle Lake, Willow Creek, Susan River, Honey Lake, and Secret Valley, in Lassen County; Truckee River, a little below Tahoe City, Placer County; Rowlands Marsh, Lake Tahoe, El Dorado County; West Fork of the Carson River, near Woodfords, Alpine County; West Walker River, near Topaz, Mono County; vertical range, from 4,000 feet on Susan River at Honey Lake up to 6,200 feet at Lake Tahoe (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 192, Sept. 26, 1933). Transplanted into Plumas County and elsewhere in California (see Storer, Journ. Mamm., vol. 18, No. 4, pp. 455–459, Nov. 22, 1937).

Ondatra zibethicus goldmani Huey*

1938. *Ondatra zibethica goldmani* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 32, p. 409, Jan. 18, 1938.

Type Locality.—St. George, Washington County, Utah. *Range.*—Probably limited to riparian association along Virgin River in southwestern Utah, from near Zion National Park westward at least to St. George and perhaps farther westward along course of Virgin River into extreme northwestern tip of Arizona; and southeastern Nevada (Hall, Mammals of Nevada, p. 567, July 1, 1946).

Ondatra zibethicus bernardi Goldman†*

1932. *Ondatra zibethica bernardi* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 93, June 21, 1952.

Type Locality.—Four miles south of Gadsden, Yuma County, Ariz. *Range.*—Colorado River and tributary sloughs along southeastern border of Nevada (Hall, Mammals of Nevada, p. 568, July 1, 1946); in California from Nevada line in San Bernardino County to Mexican boundary; also, since 1911, irrigation canals throughout Imperial Valley, Imperial County; vertical range, below 500 feet; zonal range, Lower Sonoran (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 192, Sept. 26, 1933); northeastern Baja California, southwestern Arizona, and doubtless northwestern Sonora.

Ondatra zibethicus pallidus (Mearns)*

1890. *Fiber zibethicus pallidus* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 2, p. 280, Feb. 21, 1890.

1912. *Ondatra zibethica pallida* Miller, U. S. Nat. Mus. Bull. 79, p. 232, Dec. 31, 1912.

Type Locality.—Fort Verde, Yavapai County, Ariz. *Range.*—Drainages of Verde, Little Colorado, and Gila Rivers in central and eastern Arizona (see also V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 210, Mar. 1, 1932).

Ondatra zibethicus ripensis (V. Bailey)†*

1902. *Fiber zibethicus ripensis* V. Bailey, Proc. Biol. Soc. Washington, vol. 15, p. 119, June 2, 1902.

1912. *Ondatra zibethica ripensis* Miller, U. S. Nat. Mus. Bull. 79, p. 232, Dec. 31, 1912.

Type Locality.—Eddy, near Carlsbad, Eddy County, N. Mex. *Range.*—Pecos River and its tributaries; recorded at Carlsbad, Roswell, and Santa Rosa, N. Mex., and Fort Stockton, Tex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 209, Mar. 1, 1932).

Ondatra zibethicus cinnamominus (Hollister)†*

1910. *Fiber zibethicus cinnamominus* Hollister, Proc. Biol. Soc. Washington, vol. 23, p. 125, Sept. 2, 1910.

1912. *Ondatra zibethica cinnamomina* Miller, U. S. Nat. Mus. Bull. 79, p. 232, Dec. 31, 1912.

Type Locality.—Wakeeney, Trego County, Kans. *Range.*—Central plains region of middle western United States and Canada; from southwestern Manitoba, southern Saskatchewan, and Alberta (Soper, Journ. Mamm., vol. 27, No. 2, p. 148, May 14, 1946; Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 165, Jan. 24, 1947) south to northern Texas (Hollister, North Amer. Fauna No. 32, p. 31, Apr. 29, 1911); and from eastern Montana, eastern Wyoming, and eastern Colorado (Warren, The mammals of Colorado, . . . , p. 234, 1942) eastward to southwestern corner and Red River Valley of Minnesota, western Iowa, and northwestern Missouri.

Ondatra zibethicus rivalicius (Bangs)*

1895. *Fiber zibethicus rivalicius* Bangs, Proc. Boston Soc. Nat. Hist., vol. 26, p. 541, July 31, 1895.

1912. *Ondatra rivalicia* Miller, U. S. Nat. Mus. Bull. 79, p. 232, Dec. 31, 1912.

1940. *Ondatra z[ibethicus] rivalicius* Davis and Lowery, Journ. Mamm., vol. 21, No. 2, p. 212, May 14, 1940.

Type Locality.—Burbridge, Plaquemines Parish, La. *Range.*—Coast region of Louisiana, north to northern Calcasieu, Pointe Coupee, and Tangipahoa Parishes; and in Alabama coast region west of Mobile Bay (A. H. Howell, North Amer. Fauna No. 45, p. 57, Oct. 28, 1921); and in Texas west at least to 2 miles southwest of Pasadena, Harris County (Davis and Lowery, Journ. Mamm., vol. 21, No. 2, p. 213, May 16, 1940).

Family MURIDAE

Subfamily MURINAE

Genus RATTUS [50] G. Fischer

1803. *Ruttus* [sic] G. Fischer, Das Nationalmuseum der Naturgeschichte zu Paris, . . . , vol. 2, p. 128. (Type, *Mus decumanus* Pallas=*Mus norvegicus* Berkenhout.)

1881. *Epimys* Trouessart, Bull. Soc. d'Ètudes Sci. d'Angers, vol. 10, fasc. 2, p. 117. (Type, by subsequent designation, Miller, Proc. Biol. Soc. Washington, vol. 23, p. 58, Apr. 19, 1910, *Mus rattus* Linnaeus. For present status see Ellerman, The families and genera of living rodents, vol. 2, p. 148, Mar. 21, 1941.)

1917. *Epinomys* Elliot, A check list of mammals of the North American continent, the West Indies and the neighboring seas, Suppl., Publ. Amer. Mus. Nat. Hist. p. 41, Mar. 27, 1917.

Rattus norvegicus [51] (Berkenhout)* ("Norway" rat)

1769. *Mus norvegicus* Berkenhout, Outlines of the natural history of Great Britain . . . , vol. 1, p. 5.

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[50] See Hollister, Proc. Biol. Soc. Washington, vol. 29, p. 126, June 6, 1916; Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 18, p. 240, August 1916; and Hollister, Proc. Biol. Soc. Washington, vol. 29, pp. 206–207, Sept. 22, 1916.

[51] See Cabrera, Trab. Mus. Cien. Nat., Madrid, ser. zool., No. 57, p. 264, Dec. 30, 1932. The name occurs on page 5 of Berkenhout's Synopsis of the Natural History of Great Britain and Ireland, vol. 1, 1795.

1778. *Mus decumanus* Pallas, Novae species quadrupedum e glirum ordine, . . . , p. 91.

1932. *Rattus norvegicus* Cabrera, Trab. Mus. Nac. Cien. Nat., Madrid, ser. zool., No. 57, p. 264, Dec. 30, 1932.

Type Locality.—England.[52] *Range.*—Introduced and widely established throughout North America.

Rattus rattus rattus (Linnaeus) * (black rat)

1758. [*Mus*] *rattus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 61. (According to Mohr, Biol. Zentralblatt, vol. 67, Nos. 7–8, pp. 371–372, 1948, "what Linne described as *Mus rattus* was not the black house rat, but the white-bellied, brown-grey roof rat.")

1916. *Rattus rattus* Hollister, Proc. Biol. Soc. Washington, vol. 29, p. 126, June 6, 1916.

Type Locality.—Uppsala, Sweden. *Range.*—Introduced and formerly common in the northeastern United States, but now generally replaced by *Rattus norvegicus*. Primarily a house rat (Schwarz, Amer. Journ. Trop. Med., vol. 22, No. 5, p. 577, September 1942).

Rattus rattus alexandrinus (É. Geoffroy-Saint-Hilaire) * (gray-bellied rat)

1803. *Mus alexandrinus* É. Geoffroy-Saint-Hilaire, Catalogue des mammifères du Muséum National d'Histoire Naturelle, Paris, p. 192. (Considered by Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 581, Nov. 19, 1951, to be "rather a colour phase or 'form' of the typical race than a subspecies as usually understood.")

1918. *R*[*attus*] *rattus alexandrinus* Hinton, Journ. Bombay Nat. Hist. Soc., vol. 26, No. 1, p. 63, Dec. 20, 1918.—Schwarz, Proc. Zool. Soc. London, 1934, pt. 4, p. 723, Jan. 14, 1935.

Type Locality.—Alexandria, Egypt. *Range.*—Introduced and widely established in the southern United States, and thence southward. Primarily a house rat.

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[52] Berkenhout, who lived in London and therefore must have known the rodent at first hand, naturally thought, after reading Klein's account of "*Glis norvagicus* [sic], Mures ex Norvegia" (Quadrupedum Dispositio brevisque Historia Naturalis, 1751, p 56), that the British and Irish brown rat came to England and Ireland from Norway. Bechstein, 20 years later (Gemeinnützige Naturgeschichte Deutschlands nach allen drey Reichen, vol. 1, p, 436, 1789), supposed that the animal arrived in Europe on ships engaged in the East Indian trade. According to Brants (Het Geslecht der Muizen door Linnaeus opgesteld. . . . , pp. 112–113, 1827), who wrote about 40 years after Bechstein, this rat was unknown in western Europe before the year 1750, at about which date it arrived from Persia and southeastern Asia "in ongemeene schoolen."

For detailed accounts of the early history of house-inhabiting murines in Europe see Barrett-Hamilton and Hinton, A History of British mammals, pt. 18, pp. 579–587, February 1916 (*Rattus rattus*); and pt. 19, pp. 607–611 and 635–636, September 1916 (*Rattus norvegicus* and *Mus musculus*). For accounts of their early history in North America see Miller, Bull. New York State Mus., Nat. Hist., Albany, vol. 6, No. 69, pp. 314–315, October 1899; Lantz, U. S. Biol. Survey Bull. 32, May 29, 1909; Lantz, U. S. Dept. Agr., Yearbook 1917, pp. 1–23, Oct. 17, 1917; Nelson. Nat. Geogr. Mag., vol. 32, No. 1, pp. 1–33, figs. 20, July 1917; and Silver, U. S. Dept. Agr. Farmers' Bull. 1302, April 1923.

Rattus rattus frugivorus (Rafinesque)* (white-bellied rat)

1814. *Musculus frugivorus* Rafinesque, Précis des decouverts et travaux somiologiques . . . , p. 13. ("Perhaps a colour phase of the typical race," according to Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 582, Nov. 19, 1951.)

1918. *R[attus] r[attus] frugivorus* Hinton, Journ. Bombay Nat. Hist. Soc., vol. 26, No. 1, p. 65, Dec. 20, 1918; Schwarz, Proc. Zool. Soc. London, 1934, pt. 4, p. 723, Jan. 14, 1935.

Type Locality.—Sicily. *Range.*—Introduced and widely distributed in the southern United States and thence southward; has a natural tendency to nest in trees.

Genus MUS[53] Linnaeus

1758. *Mus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 59. (Type, *Mus musculus* Linnaeus (by tautonomy).)

Mus musculus brevirostris Waterhouse*

1837. *Mus brevirostris* Waterhouse, Proc. Zool. Soc. London, 1837, pt. 5, p. 19, Nov. 21, 1837.

1845. *M[us] azoricus* Schinz, Systematisches Verzeichniss aller bis jetzt bekannten Säugethiere, oder Synopsis Mammalium nach dem Cuvier'schen System, vol. 2, p. 161. (Azores. For status see Schwarz and Schwarz, Journ. Mamm., vol. 24, No. 1, p. 64, Feb. 20, 1943.)

1897. *Mus musculus jalapae* J. A. Allen and Chapman, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 198, June 16, 1897. (Jalapa, Veracruz, México.)

1942. *Mus musculus percnonotus* Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 5, p. 79, June 1, 1942. (Mina Carlota, Barrio de Cumanayagua, Trinidad Mountains, Santa Clara, Cuba. For status see Schwarz and Schwarz, Journ. Mamm., vol. 24, No. 1, p. 64, Feb. 20, 1943.)

1943. *Mus musculus brevirostris* Schwarz and Schwarz, Journ. Mamm., vol. 24, No. 1, p. 64, Feb. 20, 1943.

Type Locality.—Maldonado, Uruguay. *Range.*—Introduced into South and Central America, and the southern part of the United States where its range passes into and overlaps that of *domesticus* (Schwarz and Schwarz, op. cit., p. 65).

Mus musculus domesticus Rutty*

1772. *Mus domesticus* Rutty, Essay Nat. Hist. County Dublin, vol. 1, p. 281.

1862. *H[esperomys] indianus* Wied-Neuwied, Arch. Naturg., Jahrg. 28, vol. 1, p. 111. (New Harmony, Posey County, Ind. See Hatt, Journ. Mamm., vol. 11, No. 3, p. 317, Aug. 9, 1930.)

1943. *Mus musculus domesticus* Schwarz and Schwarz, Journ. Mamm., vol. 24, No. 1, p. 65, Feb. 20, 1943.

Type Locality.—Dublin, Ireland. *Range.*—Introduced into North America, from Alaska to the northern part of the Central States of the United States (Schwarz and Schwarz, loc. cit.).

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[53] Revised by Schwarz and Schwarz, Journ. Mamm., vol. 24, No. 1, pp. 59–72, Feb. 20, 1943. *Mus musculus musculus* is not known to occur in North America.

Superfamily DIPODOIDEA

Family ZAPODIDAE

Subfamily ZAPODINAE (jumping mice)

Genus ZAPUS [54] Coues

1876. *Zapus* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., vol. 1, p. 253; Jan. 8, 1876. (Type, *Dipus hudsonius* Zimmermann.)

Zapus hudsonius hudsonius (Zimmermann) *

1780. *Dipus hudsonius* Zimmermann, Geographische Geschichte . . . , vol. 2, p. 358.

1876. *Zapus hudsonius* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., ser. 2, vol. 1, p. 253, Jan. 8, 1876.

1884. *Zapus hudsonius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

Type Locality.—Hudson Bay. *Range.*—In Canada, from southern shores of Hudson Bay south to north side of Lake Superior, west through eastern and central Manitoba, northern and central Saskatchewan, northern Alberta, northeastern British Columbia, and southern part of Mackenzie District, Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 168, Jan. 24, 1947); and southward to Upper Peninsula of Michigan (Burt, Mammals of Michigan, p. 234, 1946), Wisconsin, and northeastern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 3, p. 95, 1945).

Zapus hudsonius ladas Bangs*

1899. *Zapus hudsonius ladas* Bangs, Proc. New England Zool. Club, vol. 1, p. 10, Feb. 28, 1899.

Type Locality.—Rigolet, Hamilton Inlet, Labrador, Canada. *Range.*—Eastern Quebec along north shore of Gulf of St. Lawrence from Godbout eastward (Moisie Bay), Trout Lake, and other localities; and on Labrador coast from Black Bay near Strait of Belle Isle north to Hamilton Inlet, and probably found in suitable places in interior of northwest Ungava (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 169, Jan. 24, 1947).

Zapus hudsonius ontarioensis Anderson

1943. *Zapus hudsonius ontarioensis* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 59, Sept. 7, 1943.

Type Locality.—Pancake Bay (Batchawana Bay), southeast end of Lake Superior, Algoma District, about 40 miles northwest of Sault Ste. Marie, Ontario, Canada. *Range.*—All parts of eastern Ontario from Lake Erie and Lake Ontario north of Ottawa River; Gatineau and Labella Counties and probably parts of Pontiac and Papineau Counties, Quebec; north in Ontario at least to Nipissing District and west to eastern shores of Lake Superior (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 169, Jan. 24, 1947).

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[54] Revised by Preble, North Amer. Fauna No. 15, pp. 13–32, Aug. 8, 1899.

Zapus hudsonius canadensis (Davies)*

1798. *Dipus canadensis* Davies, Trans. Linn. Soc. London, vol. 4, p. 167, pl. 8.
1899. *Zapus hudsonius canadensis* Batchelder, Proc. New England Zool. Club, vol. 1, p. 4, Feb. 8, 1899.

Type Locality.—Near Quebec City, Province of Quebec, Canada. *Range.*—From Quebec City east to tip of Gaspé Peninsula and south to western New Brunswick, northern Maine, New Hampshire, Vermont, and west to Adirondack Mountains of New York (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 169, Jan. 24, 1947).

Zapus hudsonius acadicus (Dawson)*

1856. *Meriones acadicus* Dawson, Edinburgh New Philos. Journ., new ser., vol. 3, p. 2.
1942. *Zapus hudsonius acadicus* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1941, pp. 38, 52, July 14, 1942.

Type Locality.—Nova Scotia, Canada. *Range.*—Nova Scotia, Prince Edward Island, and northeastern New Brunswick (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 108, Jan. 24, 1947).

Zapus hudsonius hardyi Batchelder*

1899. *Zapus hudsonius hardyi* Batchelder, Proc. New England Zool. Club, vol. 1, p. 5, Feb. 8, 1899.

Type Locality.—Mount Desert Island, Hancock County, Me. *Range.*—Coastal Maine and central New Hampshire southward through southern New England, New York, and northwestern Pennsylvania, into northeastern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 166, Sept. 11, 1942); and south presumably through West Virginia and mountainous portion of western Virginia to North Carolina.

Zapus hudsonius americanus (Barton)*

1799. *Dipus americanus* Barton, Trans. Amer. Philos. Soc., vol. 4, p. 115.
1899. *Zapus hudsonius americanus* Batchelder, Proc. New England Zool. Club, vol. 1, p. 6, Feb. 8, 1899.

Type Locality.—Near Philadelphia, Pa. *Range.*—From New Jersey (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 167, Sept. 11, 1942) and eastern Pennsylvania southward through Coastal Plain and Piedmont of Atlantic coast to Athens, Clarke County, in northeastern Georgia (Petrides, Journ. Mamm., vol. 29, No. 1, p. 75, Feb. 13, 1948), and Pickens County, northwestern South Carolina (Coleman, Journ. Mamm., vol. 29, No. 3, p. 294, Aug. 31, 1948).

Zapus hudsonius brevipes Bole and Moulthrop

1942. *Zapus hudsonius brevipes* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 168, Sept. 11, 1942.

Type Locality.—Bettsville, Seneca County, Ohio. *Range.*—Northwestern Ohio, and probably most of Indiana; and Lower Peninsula of Michigan (Burt, Mammals of Michigan, p. 234, 1946).

Zapus hudsonius rafinesquei Bole and Moulthrop

1942. *Zapus hudsonius rafinesquei* Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 169, Sept. 11, 1942.

Type Locality.—Cat Run, extreme southeastern Belmont County, Ohio. *Range.*—Hill country of southeastern Ohio, southwestern Indiana and presumably all the Ohio Valley as well; presumably also Illinois, Kentucky, western Tennessee, and possibly eastern Missouri (Calhoun, Journ. Tennessee Acad. Sci., vol. 6, Nos. 1–2, p. 222, January 1941).

Zapus hudsonius pallidus Cockrum and Baker*

1950. *Zapus hudsonius pallidus* Cockrum and Baker, Proc. Biol. Soc. Washington, vol. 63, p. 1, Apr. 26, 1950.

Type Locality.—NW. ¼ sec. 4, T. 12 S., R. 20 E., 5½ miles north and 1¾ miles east of Lawrence, Douglas County, Kan. *Range.*—That part of Great Plains comprising southern South Dakota, probably southwestern Iowa, Nebraska, Kansas, and northern Oklahoma; eastward to central Missouri.

Zapus hudsonius campestris Preble†*

1899. *Zapus hudsonius campestris* Preble, North Amer. Fauna No. 15, p. 20, Aug. 8, 1899.

Type Locality.—Bear Lodge Mountains, Crook County, Wyo. *Range.*—From southeastern Saskatchewan and southwestern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 169, Jan. 24, 1947) southward through western and southern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 95, 1945), North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 117, Jan. 8, 1927), and eastern Montana to eastern Colorado (Warren, The mammals of Colorado, . . ., p. 240, 1942).

Zapus hudsonius tenellus Merriam†*

1897. *Zapus tenellus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 103, Apr. 26, 1897.

1934. *Zapus hudsonius tenellus* Hall, Univ. California Publ. Zool., vol. 40, No. 9, p. 377, Nov. 5, 1934.

Type Locality.—Kamloops, British Columbia, Canada. *Range.*—Dry belt of southern interior British Columbia; recorded from Kamloops, Ducks (about 25 miles east of Kamloops), Enderby, Kelly Lake, Lillooet, Nicola Lake, and Vanderhoof (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 169, Jan. 24, 1947). Specimens from Ashcroft, Bowron Lake, Indianpoint Lake, and Cottonwood, British Columbia, provisionally referred to *tenellus.*

Zapus hudsonius alascensis Merriam†*

1897. *Zapus hudsonius alascensis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 223, July 15, 1897.

Type Locality.—Yakutat Bay, Alaska. *Range.*—Yakutat Bay, north to Yukon River; recorded also at Portage Cove, Revillagigedo Island, Alaska (Swarth, Univ. California Publ. Zool., vol. 7, No. 2, p. 135, Jan. 12, 1911).

Zapus princeps princeps [55] J. A. Allen*

1893. *Zapus princeps* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 5, p. 71, Apr. 28, 1893.

Type Locality.—Florida, La Plata County, Colo. *Range.*—Rocky Mountain region from northern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 226, Mar. 1, 1932) northward to extreme western Alberta (Soper, Journ. Mamm., vol. 29, No. 1, p. 61, Feb. 13, 1948).

Zapus princeps minor Preble†*

1899. *Zapus princeps minor* Preble, North Amer. Fauna No. 15, p. 23, Aug. 8, 1899.

Type Locality.—Wingard, near Carlton House, Saskatchewan, Canada. *Range.*—Third prairie steppe of southwestern Saskatchewan and southeastern Alberta (Soper, Journ. Mamm., vol. 27, No. 2, p. 149, May 14, 1946).

Zapus princeps saltator J. A. Allen*

1899. *Zapus saltator* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 3, Mar. 4, 1899.

1931. *Zapus princeps saltator* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 10, Apr. 10, 1931.

Type Locality.—Telegraph Creek, Stikine River, British Columbia, Canada. *Range.*—From Bella Coola Inlet region (Hagensborg; Stuie; west branch of Mosher Creek, 5,000 feet; Caribou Mountain, 4,700 feet; Mount Brilliant, 5,000 feet; Rainbow Mountains), north to mouth of Skeena River (Inverness), Telegraph Creek and Atlin, and east to Wistaria near Burns Lake, and McDonald Creek, Mile 114 North, on Alaska Highway north of Summit Pass, in northern British Columbia; the most northerly record being Rose River, at Mile 95 on Canol Road, southern Yukon, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 170, Jan. 24, 1947). Recorded also at Taku River, 10 miles south of Juneau, Alaska (Swarth, Univ. California Publ. Zool., vol. 7, No. 2, p. 135, Jan. 12, 1911).

Zapus princeps kootenayensis Anderson*

1932. *Zapus princeps kootenayensis* Anderson, Nat. Mus. Canada Bull. 70, p. 108, Nov. 24, 1932.

Type Locality.—Near summit of Green Mountain, head of Murphy Creek, about 10 miles north of Rossland, West Kootenay District, British Columbia, Canada; lat. 49°13′ N., long. 117°52′ W. Altitude, about 6,000 feet. *Range.*—Interior of southern British Columbia, from eastern summit of Cascade Mountains, Similkameen, Okanagan, Kettle, Columbia, Kootenay, and Moyie River Valleys as far east as Purcell Range of Selkirks in more humid parts of Transition and Canadian Zones; northeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 373, Apr. 9, 1948); northern Idaho southward as far as Clearwater drainage, where it intergrades with *idahoensis* (Davis, The Recent mammals of Idaho, p. 337, Apr. 5, 1939); and northwestern Montana.

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[55] Races of *Zapus princeps* arranged by Hall, Univ. California Publ. Zool., vol. 37, No. 1, pp. 9–10, Apr. 10, 1931.

Zapus princeps idahoensis Davis*

1934. *Zapus princeps idahoensis* Davis, Journ. Mamm., vol. 15, No. 3, p. 221, Aug. 21, 1934.

Type Locality.—Five miles east of Warm Lake, Valley County, Idaho. Altitude, 7,000 feet. *Range.*—In Idaho, from Sawtooth Mountains north to Cedar Mountain, Latah County, and from Seven Devils Mountains east to, and perhaps into, Montana and Wyoming; south to Preuss Mountains, Caribou County, where it intergrades with *utahensis* (Davis, The Recent mammals of Idaho, p. 339, Apr. 5, 1939); west to Kamiak Butte, Whitman County, eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 373, Apr. 9, 1948); and in Canada recorded from Newgate on Kootenay River near Montana-British Columbia international boundary, Waterton Lakes National Park, and Crowsnest Pass; intergrading with northern form in Banff National Park (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 170, Jan. 24, 1947). Recorded also from Henry House and 15 miles south of Henry House, Alberta, Canada (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 26, p. 371, Dec. 15, 1952).

Zapus princeps oregonus Preble†*

1899. *Zapus princeps oregonus* Preble, North Amer. Fauna No. 15, p. 24, Aug. 8, 1899.

Type Locality.—Elgin, Blue Mountains, Union County, Oreg. *Range.*—Blue mountains of southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 373, Apr. 9, 1948), northeastern Oregon, and Weiser River drainage basin, Washington County, western Idaho (Davis, The Recent mammals of Idaho, p. 341, Apr. 5, 1939).

Zapus princeps alleni Elliot*

1898. *Zapus alleni* Elliot, Field Columb. Mus. Publ. 27, Zool. Ser., vol. 1, No. 10 (March), p. 212, Apr. 16, 1898.

1899. *Zapus trinotatus alleni* Preble, North Amer. Fauna No. 15, p. 27, Aug. 8, 1899.

1946. *Zapus princeps alleni* Hall, Mammals of Nevada, p. 578, July 1, 1946.

Type Locality.—Pyramid Peak, near Lake Tahoe, El Dorado County, Calif. *Range.*—Sierra Nevada, from Jordan Hot Springs and from Sherman Creek (in Sequoia National Park), Tulare County, north to Lassen Peak and Mount Shasta; thence west through Trinity and Salmon Mountains in Trinity and Siskiyou Counties; also on South Yolla Bolly Mountain, in Tehama County; vertical range, from 3,600 feet (near Fyffe, El Dorado County) up to 10,000 feet (head of Lyell Canyon, Tuolumne County); zonal range, Canadian to Hudsonian, locally into Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 196, Sept. 26, 1933); and vicinity of Lake Tahoe, Nevada (Hall, op. cit., p. 579).

Zapus princeps major Preble†*

1899. *Zapus major* Preble, North Amer. Fauna No. 15, p. 24, Aug. 8, 1899. (Regarded as identical with *oregonus* by V. Bailey, North Amer. Fauna No. 55 (June), p. 234, Aug. 29, 1936.)

1931. *Zapus princeps major* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 10, Apr. 10, 1931.

Type Locality.—Warner Mountains, Lake County, Oreg. *Range.*—Warner Mountains in eastern Modoc County, at least from Lassen Creek south to Eagle

Peak; vertical range, from 4,800 feet (Goose Lake Meadows near Davis Creek) to 8,700 feet (Warren Peak); zonal range, Canadian and Transition (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 196, Sept. 26, 1933); and northward to scattered desert ranges in eastern Oregon.

Zapus princeps curtatus Hall

1931. *Zapus princeps curtatus* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 7, Apr. 10, 1931.

Type Locality.—Head of Big Creek, Pine Forest Mountains, Humboldt County, Nev. Altitude, 8,000 feet. *Range.*—Pine Forest Mountains, northern Humboldt County.

Zapus princeps palatinus Hall

1931. *Zapus princeps palatinus* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 8, Apr. 10, 1931.

Type Locality.—Wisconsin Creek, Toyabe Mountains, Nye County, Nev. Altitude, 7,800 feet. *Range.*—Toyabe Mountains, central Nevada.

Zapus princeps nevadensis Preble†*

1899. *Zapus nevadensis* Preble, North Amer. Fauna No. 15, p. 25, Aug. 8, 1899.

1931. *Zapus princeps nevadensis* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 10, Apr. 10, 1931.

Type Locality.—Ruby Mountains, Elko County, Nev. *Range.*—Northeastern Nevada, from Roberts Mountains northward through Ruby Mountains to Jarbridge Mountains and west into Santa Rosa Mountains (Hall, Mammals of Nevada, p. 579, July 1, 1946); and south of Snake River in central Idaho.

Zapus princeps cinereus Hall

1931. *Zapus princeps cinereus* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 7, Apr. 10, 1931.

Type Locality.—Pine Canyon, Raft River Mountains, 17 miles northwest of Kelton, Box Elder County, Utah. Altitude, 6,600 feet. *Range.*—Known from Raft River Mountains (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 387, Aug. 10, 1952).

Zapus princeps utahensis Hall*

1934. *Zapus princeps utahensis* Hall, Occ. Pap. Mus. Zool. Univ. Michigan, No. 296, p. 3, Nov. 2, 1934.

Type Locality.—Nineteen miles south of Manila, Daggett County, Utah. *Range.*—Uinta and Wasatch Mountains, south to Beaver Mountains and also Oquirrh Mountains in Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 387, Aug. 10, 1952); and Bear River Mountains, Bear Lake County, Idaho (Hall, Murrelet, vol. 20, No. 3, p. 71, September–December 1939).

Zapus trinotatus trinotatus Rhoads*

1895. *Zapus trinotatus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, 1894, p. 421, January 15, 1895. (Regarded as a subspecies of *princeps* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 371, Apr. 9, 1948.)

1899. *Zapus imperator* Elliot, Field Columb. Mus. Publ. 30, Zool. Ser., vol. 1, p. 228, Feb. 2, 1899. (Sieg's Ranch, Elwha River, Clallam County, Wash.)

Type Locality.—Lulu Island, mouth of Fraser River, British Columbia, Canada. *Range.*—Pacific coast region from southwestern British Columbia mostly at low levels (Aldergrove, Brackendale, at head of Howe Sound, Chilliwack, Cultus Lake, Garibaldi Park, Mons, Point Gray), reaching 2,200 feet altitude at Alta Lake, and 4,500 feet in Lihumitson Park near international boundary (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 171, Jan. 24, 1947); western Washington and Cascade Mountains, east at least to Tomyhoi Lake (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 371, Apr. 9, 1948); and western Oregon inland to Willamette, Umpqua, and lower Rogue River Valleys (V. Bailey, North Amer. Fauna No. 55 (June), p. 232, Aug. 29, 1936).

Zapus trinotatus pacificus Merriam†*

1897. *Zapus pacificus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 104, Apr. 26, 1897.

1936. *Zapus trinotatus pacificus* V. Bailey, North Amer. Fauna No. 55 (June), p. 233, Aug. 29, 1936.

Type Locality.—Prospect, Rogue River Valley, Jackson County, Oreg. *Range.*—Upper Rogue River Valley in southwestern Oregon.

Zapus trinotatus montanus Merriam†*

1897. *Zapus trinotatus montanus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 104, Apr. 26, 1897.

1899. *Zapus montanus* Preble, North Amer. Fauna No. 15, p. 28, Aug. 8, 1899.

1936. *Zapus trinotatus montanus* V. Bailey, North Amer. Fauna No. 55 (June), p. 234, Aug. 29, 1936.

Type Locality.—Crater Lake, Mount Mazama, Klamath County, Oreg. *Range.*—Canadian Zone of Cascade Mountain region of Oregon.

Zapus trinotatus eureka A. B. Howell*

1920. *Zapus trinotatus eureka* A. B. Howell, Univ. California Publ. Zool., vol. 21, No. 5, p. 229, May 20, 1920.

Type Locality.—Fair Oaks [6 miles southwest of], Humboldt County, Calif. *Range.*—Northern portion of humid coast belt; south at least from Arcata, Humboldt County, as far as Mendocino City, Mendocino County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 195, Sept. 26, 1933).

Zapus orarius Preble*

1899. *Zapus orarius* Preble, North Amer. Fauna No. 15, p. 29, Aug. 8, 1899.

Type Locality.—Point Reyes, Marin County, Calif. *Range.*—Bunch grass marshes on uplands of Point Reyes Peninsula, Marin County; recorded east to within 2 miles of Inverness (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 196, Sept. 26, 1933).

Zapus luteus luteus Miller†*

1911. *Zapus luteus* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 253, Dec. 23, 1911.

Type Locality.—Espanola, Rio Arriba County, N. Mex. Altitude, 5,500 feet. *Range.*—Recorded also from Sacramento Mountains, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 228, Mar. 1, 1932); and from Hannagan Creek, Greenlee County, and west fork of Black River, Apache County, Ariz. (Hall and Davis, Proc. Biol. Soc. Washington, vol. 47, p. 55, Feb. 9, 1934).

Zapus luteus australis V. Bailey†*

1913. *Zapus luteus australis* V. Bailey, Proc. Biol. Soc. Washington, vol. 26, p. 132, May 21, 1913.

Type Locality.—Socorro, Socorro County, N. Mex. *Range.*—Known from type locality only.

Genus NAPAEOZAPUS[56] Preble

1899. *Napaeozapus* Preble, North Amer. Fauna No. 15, p. 33, Aug. 8, 1899. (Type, *Zapus insignis* Miller.)

Napaeozapus insignis insignis (Miller)*

1891. *Zapus insignis* Miller, Amer. Nat., vol. 25, p. 742, August 1891.

1899. *Napaeozapus insignis* Miller, Bull. New York State Mus. Nat. Hist., Albany, vol. 6, p. 330, Nov. 18, 1899.

Type Locality.—Restigouche River, New Brunswick, Canada. *Range.*— Eastern Canada, mostly in Canadian Zone, from Nova Scotia (including Cape Breton Island), New Brunswick (Gloucester, Madawaska, and York Counties), and Quebec (except Gaspé Peninsula) south of St. Lawrence River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 171, Jan. 24, 1947); south to northern West Virginia (Brooks, Rep. West Virginia State Board Agric. No. 20, p. 19, 1911) and Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 173, Sept. 11, 1942).

Napaeozapus insignis gaspensis Anderson

1942. *Napaeozapus insignis gaspensis* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1941, p. 39, July 14, 1942.

Type Locality.—Near Federal Zinc and Lead Mine, on upper waters of Berry Mountain Brook, a tributary of Grand Cascapedia River, Shickshock Mountains, about half way between Gulf of St. Lawrence and Baie de Chaleur, Gaspé County, Quebec, Canada. Altitude, about 1,500 feet. *Range.*—Gaspé Peninsula, Quebec.

Napaeozapus insignis saguenayensis Anderson

1942. *Napaeozapus insignis saguenayensis* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1941, p. 40, July 14, 1942.

Type Locality.—Trout Lake, near Moisie Bay, north shore of Gulf of St. Lawrence, Saguenay County, Quebec, Canada. *Range.*—North shore of Gulf of St. Lawrence from Godbout east to Strait of Belle Isle in Saguenay County, Quebec, and Labrador coast region north to Hamilton Inlet, Labrador (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 172, Jan. 24, 1947).

Napaeozapus insignis algonquinensis Prince

1941. *Napaeozapus insignis algonquinensis* Prince, Occ. Pap. Roy. Ontario Mus. Zool. No. 7, p. 1, Dec. 12, 1941.

Type Locality.—Smoke Lake, Algonquin Park, Ontario, Canada. *Range.*— From southern limits of range of species in Ontario (north Peel County, north York County, and central Ontario County) north of Bigwood, Sudbury District, and Lake Nipissing, east at least as far as Lake Edward, Champlain County, Quebec.

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[56] Revised by Preble, North Amer. Fauna No. 15, pp. 13–32, Aug. 8, 1899.

Napaeozapus insignis abietorum (Preble)*

1899. *Zapus* (*Napaeozapus*) *insignis abietorum* Preble, North Amer. Fauna No. 15, p. 36, Aug. 8, 1899.

1900. *Napaeozapus insignis abietorum* Miller, Bull. New York State Mus. Nat. Hist., Albany, vol. 8, p. 114, Nov. 21, 1900.

Type Locality.—Peninsula Harbor, north shore of Lake Superior, Ontario, Canada. *Range.*—Hudsonian Zone from western Ontario (Nipigon, Peninsula Harbor, north of Lake Superior), Timagimi Forest Reserve, Abitibi, and presumably east through central Quebec north of range of *algonquinensis* (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 171, Jan. 24, 1947).

Napaeozapus insignis frutectanus Jackson†*

1919. *Napaeozapus insignis frutectanus* Jackson, Proc. Biol. Soc. Washington, vol. 32, p. 9, Feb. 14, 1919.

Type Locality.—Crescent Lake, Oneida County, Wis. *Range.*—Upper Peninsula and northern part of Lower Peninsula of Michigan (Burt, Mammals of Michigan, p. 235, 1946); northern Wisconsin; northeastern Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 95, 1945); in Canada near southeast corner of Lake Superior (Pancake Bay, Batchawana Bay), one record from Rainy River in western Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 172, Jan. 24, 1947); and also in southeastern Manitoba near Caddy Lake in Whiteshell Forest Reserve and at Cedar Lake near Vivian (Soper, Journ. Mamm., vol. 27, No. 2, p. 149, May 14, 1946).

Napaeozapus insignis roanensis (Preble)†*

1899. *Zapus* (*Napaeozapus*) *insignis roanensis* Preble, North Amer. Fauna No. 15, p. 35, Aug. 8, 1899.

1900. *Napaeozapus insignis roanensis* Miller, Bull. New York State Mus. Nat. Hist., Albany, vol. 8, p. 114, Nov. 21, 1900.

Type Locality.—Roan Mountain, Mitchell County, N. C. *Range.*—Eastern West Virginia (Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 470, Oct. 7, 1937) and western Maryland southward through Appalachian highlands to Tennessee (Komarek and Komarek, Bull. Chicago Acad. Sci., vol. 5, No. 6, p. 160, Aug. 15, 1938) and to Rabun County, Ga. (Odum, Journ. Mamm., vol. 30, No. 2, p. 191, May 23, 1949).

Suborder HYSTRICOMORPHA

Superfamily ERETHIZONTOIDEA

Family ERETHIZONTIDAE (American porcupines)

Subfamily ERETHIZONTINAE

Genus ERETHIZON[57] F. Cuvier

1822. *E*[*rethizon*] F. Cuvier, Mém. Mus. Hist. Nat., Paris, vol. 9, p. 432. (Type, *Hystrix dorsata* Linnaeus.)

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[57] Races revised by Anderson and Rand, Canadian Journ. Res., Ottawa, vol. 21, sect. D, pp. 292–309, Sept. 6, 1943.

Erethizon dorsatum dorsatum (Linnaeus)*

1758. [*Hystrix*] *dorsata* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 57.

1822. *E*[*rethizon*] *dorsatum* F. Cuvier, Mém Mus. Hist. Nat., Paris, vol. 9, p. 432.

1884. *Erethrizon* [sic] *dorsatus dorsatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1912. *Erethizon dorsatum dorsatum* Miller, U. S. Nat. Mus. Bull. 79, p. 289, Dec. 31, 1912.

Type Locality.—Eastern Canada [=Province of Quebec]. *Range.*—Eastern Canada, from Nova Scotia and Gaspé to Manitoba and northern Saskatchewan; intergrading with *myops* in color in southern Yukon, and with *myops* in skull characters in Wood Buffalo National Park, northern Alberta, Canada (Anderson and Rand, Canadian, Journ. Res., Ottawa, vol. 21, sect. D. p. 300, Sept. 6, 1943. See also Soper, Journ. Mamm., vol. 27, No. 2, p. 149, May 14, 1946, and vol. 29, No. 1, p. 61, Feb. 13, 1948); southward through Northeastern States to West Virginia (Kellogg, Proc. U. S. Nat. Mus., vol. 84, p. 471, Oct. 7, 1937); recorded from northeastern and northwestern Ohio (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 5, No. 6, p. 173, Sept. 11, 1942); Upper and Lower Peninsulas of Michigan (Burt, Mammals of Michigan, p. 238, 1946); southern Wisconsin (Schorger, Journ. Mamm., vol. 23, No. 1, p. 97, Feb. 14, 1941); and Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 95, 1945).

Erethizon dorsatum picinum Bangs*

1900. *Erethizon dorsatus picinus* Bangs, Proc. New England Zool. Club, vol. 2, p. 37, Sept. 20, 1900.

1912. *Erethizon dorsatum picinum* Miller, U. S. Nat. Mus. Bull. 79, p. 289, Dec. 31, 1912.

1937. *Erethizon epixanthum doani* H. H. Bailey, Bailey Mus. and Library Nat. Hist. Bull. 12, Miami, p. [1], Jan. 15, 1937. (Timber, 15 miles northwest of Red Bay, Labrador.)

Type Locality.—L'Anse au Loup, Strait of Belle Isle, Labrador, Canada. *Range.*—Common and generally distributed in Labrador and northeastern Quebec, from Gulf of St. Lawrence north to semi-barrens; west to Chimo but otherwise its western limits are unknown, though porcupines undoubtedly occur here and there over Ungava Peninsula south of northern limit of trees (Anderson and Rand, Canadian Journ. Res., Ottawa, vol. 21, sect. D, p. 300, Sept. 6, 1943).

Erethizon dorsatum myops Merriam†*

1900. *Erethizon epixanthus myops* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 27, Mar. 14, 1900.

1943. *Erethizon dorsatum myops* Anderson and Rand, Canadian Journ. Res., Ottawa, vol. 21, sect. D, p. 293, Sept. 6, 1943.

Type Locality.—Portage Bay, Alaska Peninsula, Alaska. *Range.*—Wooded parts of Alaska from Yukon River (Osgood, North Amer. Fauna No. 19, p. 38, Oct. 6, 1900) southward to base of Alaska Peninsula (Osgood, North Amer. Fauna No. 24, p. 38, Nov. 23, 1904) and eastward at least to Wrangell Island and Le Conte Bay, southeastern Alaska (Webster, Journ. Mamm., vol. 30, No. 1,

p. 81, Feb. 14, 1949); and through Yukon to northern Alberta, Canada; specimens from northern Alberta (Wood Buffalo National Park) and from southern Yukon (Pelly River, Canol Road, Mile 95; Lapie River, Mile 132; and Teslin Lake) appear to show intergradation with *dorsatum*, and presumably likewise do porcupines occurring in extreme northern British Columbia and southwestern Mackenzie District, Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 173, Jan. 24, 1947). Recorded north to Chandler Lake and John River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950).

Erethizon dorsatum nigrescens J. A. Allen*

1903. *Erethizon epizanthus* [sic] *nigrescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 558, Oct. 10, 1903.

1943. *Erethizon dorsatum nigrescens* Anderson and Rand, Canadian Journ. Res., Ottawa, vol. 21, sect. D, p. 293, Sept. 6, 1943.

Type Locality.—Shesley River, British Columbia, Canada. *Range.*—British Columbia from Telegraph Creek south in Coast Mountains to New Westminster District (Alta Lake), in interior to Chilcotin, Okanagan, Rossland (near Washington boundary), Yahk (near Idaho–Montana corner); and Jasper and Waterton Lakes in Rocky Mountains of southwestern Alberta, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 173, Jan. 24, 1947); and forested parts of Washington, exclusive of Blue Mountains, although extremely rare west of Cascades, but occasionally reported as far west as Olympic Peninsula (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 376, Apr. 9, 1948).

Erethizon dorsatum bruneri Swenk*

1916. *Erethizon epixanthum bruneri* Swenk, Univ. Stud., Nebraska, vol. 16, p. 117, Nov. 21, 1916.

1947. *Erethizon dorsatum bruneri* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 173, Jan. 24, 1947.

Type Locality.—Three miles east of Mitchell, Scotts Bluff County, Nebr. *Range.*—From southern Saskatchewan, Canada (Anderson, loc. cit.) southward to western Oklahoma (McMurry, Journ. Mamm., vol. 25, No. 4, p. 413, Dec. 12, 1944); west to Weld County, Colo. (Warren, The mammals of Colorado, . . . , p. 244, 1942).

Erethizon dorsatum epixanthum Brandt*

1835. *Erethizon epixanthus*, Brandt, Mém. Acad. Imp. Sci., St. Petersbourg, ser. 6, Sci. Math. Phys. et Nat. vol. 3, p. 390.

1884. *Erethrizon* [sic] *dorsatus epixanthus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1943. *Erethizon dorsatum epixanthum* Anderson and Rand, Canadian Journ. Res., Ottawa, vol. 21, sect. D, p. 293, Sept. 6, 1943.

Type Locality.—California (see Hollister, Canadian Alpine Journ., Special Number, p. 27, Feb. 17, 1913). *Range.*—Mountains of northern part of California interiorly of humid coast belt from Sequoia National Park and Whitney Creek, 10,850 feet, in Tulare County northward along Sierra Nevada; reported as occurring formerly at least on San Bernardino Mountains, San Bernardino County; westernmost stations of record at north, Forest House Mountain, 4,000 feet, 8 miles west of Yreka, Siskiyou County, and South Fork Mountain, Humboldt County; thence occurs south, west of Sacramento Valley, to vicinity of North Yolla Bolly Mountain, Trinity County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 196, Sept. 26, 1933); Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 228, Aug. 29, 1936); the Columbian Plateau and Blue Mountains of Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 376, Apr. 9, 1948); Nevada, except Clark County (Hall, Mammals of Nevada, p. 585, July 1, 1946); Idaho (Davis, The Recent mammals of Idaho, p. 344, Apr. 5, 1939); Utah west of Colorado River (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 101, Feb. 15, 1951); and from Cypress Hills area of southeastern Alberta and southwestern Saskatchewan, Canada, as an intergrade with ***bruneri*** (Anderson and Rand, op. cit., p. 309), southward in mountainous regions of Montana, Wyoming, and Colorado (Warren, the mammals of Colorado, p. 243, 1942) to San Juan, Jemez, Taos, and Pecos River Mountains, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 220, Mar. 1, 1932).

Erethizon dorsatum couesi Mearns†*

1897. *Erethizon epixanthus couesi* Mearns, Proc. U. S. Nat. Mus., vol. 19, p. 723, July 30, 1897.

1946. *Erethizon dorsatum couesi* Hall, Mammals of Nevada, p. 649, July 1, 1946.

Type Locality.—Fort Whipple, Yavapai County, Ariz. *Range.*—From New York Mountains in northeastern San Bernardino County, Calif. (Jaeger, Journ. Mamm., vol. 30, No. 2, p. 200, May 23, 1949), eastward across Arizona (recorded from Yuma County by Monson, Journ. Mamm., vol. 29, No. 2, p. 182, May 14, 1948; from Coconino County by Doutt, Ann. Carnegie Mus., vol. 23, p. 266, August 4, 1934; and from Cochise County by Dice and Blossom, Carnegie Inst. Washington Publ. 485, p. 39, 1937. See also Taylor, Univ. Arizona Bull., vol. 6, No. 5 (Biol. Sci. Bull. 3), pp. 20–21, July 1, 1935) to Mogollon Mountain region of New Mexico (recorded from Mimbres, San Mateo, Magdalena, and Datil Ranges by V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 222, Mar. 1, 1932), and southward to Guadalupe and Delaware mountains, Culberson County, Tex. (Davis and Robertson, Journ. Mamm., vol. 25, No. 3, p. 271, May 26, 1944. See also, V. Bailey, North Amer. Fauna No. 25, p. 150, Oct. 24, 1905; and Blair, Univ. Michigan Mus. Zool. Misc. Publ. 46, p. 33, June 28, 1940); northward to Clark County, southeastern Nevada (Hall, op. cit., p. 585), to Chromo, Archuleta County, southwestern Colorado (F. W. Miller, Journ. Mamm., vol. 5, No. 2, p. 134, May 10, 1924); and to southeastern Utah east of Colorado River (Kelson, Univ. Utah Biol. Ser., vol. 11, No. 3, p. 101, Feb. 15, 1951). Recorded also in Texas south to Hudspeth, Brewster, and Kerr Counties (Taylor and Davis, Texas Game, Fish, and Oyster Comm. Bull. 27, p. 66, August 1947).

Genus COENDOU[58] Lacépède

1799. *Coendou* Lacépède, Tableau des divisions, sous-divisions, ordres et genres des mammifères, p. 11 (published as supplement to Discours d'ouverture et de clôture du cours d'histoire naturelle . . .). (Type, *Hystrix prehensilis* Linnaeus.)

Coendou mexicanus mexicanus (Kerr)*

1792. *Hystrix mexicana* Kerr, The Animal Kingdom . . . p. 214.

1884. *Synetheres mexicanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1901. *Coendou mexicanum* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 173, Dec. 27, 1901.

Type Locality.—Mountains of México. *Range.*—Probably high mountain ranges of México, Guatemala, Honduras, and northern Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 172, May 29, 1942). Recorded also from Xilitla region of San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 12, July 10, 1950).

Coendou mexicanus laenatus Thomas*

1903. *Coendou laenatus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 381, April 1903.

1920. *Coendou mexicanum laenatum* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 133, Apr. 24, 1920.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 5,000 feet. *Range.*—Highlands of Costa Rica and western Panamá (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 416, Dec. 31, 1946).

Coendou mexicanus yucataniae Thomas

1902. *Coendou mexicanus yucataniae* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 10, p. 249, September 1902.

Type Locality.—Yucatán (probably near Izamal), México. *Range.*—Yucatán.

Coendou pallidus (Waterhouse)

1848. *Cercolabes pallidus* Waterhouse, A natural history of the Mammalia, vol. 2, p. 434.

1897. [*Coendu*] *pallidus* Trouessart, Catalogus Mammalium . . . , fasc. 3, p. 622.

Type Locality.—"Said to be . . . the West Indies."

Coendou rothschildi Thomas*

1902. *Coendou rothschildi* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 10, p. 169, August 1902.

Type Locality.—Sevilla Island, off Chiriquí, Panamá. *Range.*—Canal Zone and southwestern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 134, Apr. 24, 1920).

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[58] For masculine gender see Tate, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 306, footnote, June 12, 1935. Subfamily *Coendinae* proposed by Pocock (Proc. Zool. Soc. London, 1922, pt. 2, p. 422, June 28, 1922) not recognized as valid by either Ellerman (The families and genera of living rodents, vol. 1, p. 177, June 8, 1940) or Simpson (Bull. Amer. Mus. Nat. Hist., vol. 85, p. 94, Oct. 5, 1945).

Superfamily CAVIOIDEA

Family HYDROCHOERIDAE (capybaras)

Subfamily HYDROCHOERINAE

Genus HYDROCHOERUS[59] Brisson

1762. *Hydrochoerus* Brisson, Regnum animale . . ., ed. 2, p. 12. (Type *Hydrochoerus* Brisson = *Sus hydrochoeris* Linnaeus.)

1772. *Hydrochaeris* Brünnich, Zoologiae fundamenta . . ., p. 44. (Type, "Elvesvinet=*Sus hydrochoeris* Linnaeus.)

Hydrochoerus isthmius Goldman†*

1912. *Hydrochoerus isthmius* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 11, Sept. 20, 1912.

Type Locality.—Marraganti, near head of tidewater on Río Tuyra, Darién, eastern Panamá. *Range.*—Drainage of Río Tuyra, Darién, extreme eastern Panamá. Recorded also near Juan Mina, Río Chagres basin, Canal Zone (Trapido, Journ. Mamm., vol. 28, No. 4, p. 408, Dec. 1, 1947), and Pacific coastal swamps into which Río Tocumen, Río Cabuya and Río Cabra empty, about 15 miles east of city of Panamá (Trapido, Journ. Mamm., vol. 30, No. 1, p. 80, Feb. 14, 1949).

Family HEPTAXODONTIDAE

Subfamily HEPTAXODONTINAE

Genus HEPTAXODON Anthony

1917. *Heptaxodon* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 183, Jan. 29, 1917. (Type, *Heptaxodon bidens* Anthony.)

Heptaxodon bidens Anthony

1917. *Heptaxodon bidens* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 183, Jan. 29, 1917.

Type Locality.—Utuado, Puerto Rico. *Range.*—Known from cave remains only.

Genus ELASMODONTOMYS Anthony

1916. *Elasmodontomys* Anthony, Ann. New York Acad. Sci., vol. 27, p. 199, Aug. 9, 1916. (Type, *Elasmodontomys obliquus* Anthony.)

Elasmodontomys obliquus Anthony

1916. *Elasmodontomys obliquus* Anthony, Ann. New York Acad. Sci., vol. 27, p. 199, Aug. 9, 1916.

Type Locality.—Utuado, Puerto Rico. *Range.*—Known from cave remains only.

Genus QUEMISIA Miller

1929. *Quemisia* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 22, Mar. 30, 1929. (Type, *Quemisia gravis* Miller.)

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[59] Brisson's "Regnum animale . . . regarded as non-Linnaean and not consistently binomial by Hopwood, Proc. Zool. Soc. London, vol. 117, pts. 2–3, pp. 534, 535, Oct. 30, 1947. See also Hershkovitz, Proc. Biol. Soc. Washington, vol. 62, p. 12, Mar. 17, 1939.

Quemisia gravis Miller†* (the "quemi" of Oviedo)

1929. *Quemisia gravis* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 23, Mar. 30, 1929.

Type Locality.—Cave near Atalaye plantation, 4 miles east of St. Michel, Haiti. *Range.*—Known only from remains found in caves and Indian deposits; but probably not yet extinct at beginning of Spanish occupation (see Miller, Smithsonian Misc. Coll., vol. 82, No. 5, p. 13, December 1929).

Family DASYPROCTIDAE

Subfamily CUNICULINAE (spotted cavies)

Genus CUNICULUS[60] Brisson

1762. *Cuniculus* Brisson, Regnum animale . . . , ed. 2, p. 13. (Type, by subsequent designation, *Paca* Brisson=*Mus paca* Linnaeus. See Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 79, Mar 22, 1913.)

1763. *Cuniculus* Gronovius, Zoophylacium Gronovianum, . . . , fasc. 1, p. 4. (Type, not designated; included species are (14)=*Mus aguti;* (15)=*Mus paca*; and (16)=*Mus porcellus.*)

1799. *Agouti* Lacépède, Tableau des divisions, sous-divisions, ordres et genres des mammifères, p. 9 (published as supplement to Discours d'ouverture et clôture du cours d'histoire naturelle . . . .). (Type, *Agouti paca*=*Mus paca* Linnaeus.)

Cuniculus paca virgatus (Bangs)*

1884. *Coelogenys paca* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1902. *Agouti paca virgatus* Bangs, Bull. Mus. Comp. Zool., vol. 39, No. 2, p. 47, April 1902.

1913. *Cuniculus paca virgatus* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 79, Mar. 22, 1913.

Type Locality.—Divalá, Chiriquí, Panamá. *Range.*—From Canal Zone to Chiriquí in western Panamá and in western Costa Rica to San Gerónimo; limits of range unknown (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 420, Dec. 31, 1946).

Cuniculus paca nelsoni (Goldman)†*

1913. *Agouti paca nelsoni* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 9, Feb. 28, 1913.

1913. *Cuniculus paca nelsoni* Hollister, Proc. Biol. Soc. Washington, vol. 26, p. 79, Mar. 22, 1913.

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[60] Brisson's "Regnum animale . . ." regarded as non-Linnaean and not consistently binomial by Hopwood, Proc. Zool. Soc. London, vol. 117, pts. 2–3, p. 534, Oct. 30, 1947. See also Hershkovitz, Proc. Biol. Soc. Washington, vol. 62, p. 12, Mar. 17, 1949.

According to Opinion 20 of the International Commission on Zoological Nomenclature (Smithsonian Inst. Spec. Publ. 1938, pp. 48–50, July 1910), Gronow, 1763, is binary, though not consistently binomial. Subsequently, in Opinion 89 (Smithsonian Misc. Coll., vol. 73, No. 3, p. 27, Dec. 16, 1925) the Commission made a ruling which in effect rejected all names published as new in Gronow (Gronovius), but left "them as available as of the dates when they were later adopted by authors whose nomenclatorial practice is unquestioned by zoologists."

Type Locality.—Catemaco, southern Veracruz, México. *Range.*—Coastal plains and mountain slopes from vicinity of Jalapa, Veracruz, eastward and southward through Tabasco, Chiapas and Peninsula of Yucatán to eastern Guatemala; and western Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 174, May 29, 1942). Recorded also at Xilitla, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 12, July 10, 1950).

Subfamily DASYPROCTINAE (agoutis)

Genus DASYPROCTA Illiger

1811. *Dasyprocta* Illiger, Prodromus systematis Mammalium et Avium . . . , p. 93. (Type, *Mus aguti* Linnaeus.)

Dasyprocta aguti (Linnaeus)*

1766. [*Mus*] *aguti* Linnaeus, Systema naturae, ed. 12, vol. 1, p. 80.

1829. *D*[*asyprocta*] *aguti* Fischer, Synopsis Mammalium, p. 379.

Type Locality.—Brazil. *Range.*—Introduced on St. Thomas, Virgin Islands, West Indies (Miller, Proc. U. S. Nat. Mus., vol. 54, p. 508, Oct. 15, 1918).

Dasyprocta albida Gray*

1842. *Dasyprocta albida* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 10, p. 264, December 1842.

1884. *Dasyprocta cristata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1911. *Dasyprocta albida* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 202, July 1911.

Type Locality.—St. Vincent, Lesser Antilles. *Range.*—St. Vincent Island. Recorded also from Grenada (USNM 267382).

Dasyprocta antillensis Sclater*

1875. *Dasyprocta antillensis* Sclater, Proc. Zool. Soc. London, 1874, pt. 4, p. 666, April 1875.

1911. *Dasyprocta antillensis* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 203, July 1911.

Type Locality.—St. Lucia, Lesser Antilles. *Range.*—St. Lucia Island. Recorded also from Martinique (USNM 293781).

Dasyprocta noblei G. M. Allen*

1914. *Dasyprocta noblei* G. M. Allen, Proc. New England Zool. Club, vol. 5, p. 69, Oct. 7, 1914.

Type Locality.—Goyave, Guadeloupe, Lesser Antilles. *Range.*—Guadeloupe Island. Recorded also from St. Kitts (USNM 38072), Dominica (USNM 38422), and Montserrat (USNM 114010).

Dasyprocta mexicana Saussure*

1860. *Dasyprocta mexicana* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 53.

1884. *Dasyprocta mexicana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

Type Locality.—"Hot zone of México"; probably in State of Veracruz.

Dasyprocta ruatanica Thomas

1901. *Dasyprocta ruatanica* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 272, October 1901.

Type Locality.—Ruatan Island, Bay Islands, Honduras. *Range.*—Bay Islands.

Dasyprocta punctata punctata Gray*

1842. *Dasyprocta punctata* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 10, p. 264, December 1842.

Type Locality.—Western Nicaragua (Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 114, May 23, 1917. Restricted to Realejo, Chinandega, Nicaragua, by Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 417, Dec. 31, 1946). *Range.*—El Salvador, western Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 173, May 29, 1942), western Nicaragua, and northwestern Costa Rica (Goodwin, 1946, loc. cit.)

Dasyprocta punctata chiapensis Goldman†*

1884. *Dasyprocta punctata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1913. *Dasyprocta punctata chiapensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 13, Feb. 28, 1913.

Type Locality.—Huehuetán, Chiapas, México. *Range.*—Southern Chiapas, from sea level to at least 3,500 feet altitude, and probably adjacent parts of Guatemela.

Dasyprocta punctata yucatanica Goldman†*

1913. *Dasyprocta punctata yucatanica* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 12, Feb. 28, 1913.

Type Locality.—Apazote, near Yohaltún, Campeche, México. *Range.*—Campeche and northern Yucatán, México, south at least to central British Honduras and northeastern Guatemala (A. Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 28, July 15, 1935).

Dasyprocta punctata richmondi Goldman†*

1917. *Dasyprocta punctata richmondi* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 114, May 23, 1917.

Type Locality.—Escondido River, 50 miles above Bluefields, Zelaya, Nicaragua. *Range.*—From Talamanca north through central and eastern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 418, Dec. 31, 1946) and eastern Nicaragua to south-central and eastern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 174, May 29, 1942).

Dasyprocta punctata underwoodi Goldman†*

1931. *Dasyprocta punctata underwoodi* Goldman, Journ. Washington Acad. Sci., vol. 21, No. 19, p. 481, Nov. 19, 1931.

Type Locality.—San Gerónimo, Pirris, San José, western Costa Rica. *Range.*—Western Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 419, Dec. 31, 1946).

Dasyprocta punctata nuchalis Goldman

1917. *Dasyprocta punctata nuchalis* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 113, May 23, 1917.

Type Locality.—Divalá, Chiriquí, Panamá. *Range.*—Southwestern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 129, Apr. 26, 1920).

Dasyprocta punctata pallidiventris Bole

1937. *Dasyprocta punctata pallidiventris* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 182, Aug. 31, 1937.

Type Locality.—Paracoté (plantation headquarters of Boston-Panamá Cocoanut Company), 1½ miles south of mouth of Angulo River, Mariato-Suay Lands, Veraguas, Panamá. *Range.*—Known from type locality only, and presumably confined to southern part of Azuero Peninsula.

Dasyprocta punctata isthmica Alston*

1876. *Dasyprocta isthmica* Alston, Proc. Zool. Soc. London, 1876, pt. 2, p. 347, August 1876.

1884. *Dasyprocta istkmica* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1913. *D[asyprocta] punctata isthmica* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 11, Feb. 28, 1913.

Type Locality.—Colón, Canal Zone, Panamá. *Range.*—Recorded also from Gatún, Maxon Ranch (Río Trinidad), and Río Indio (near Gatún) in or near Canal Zone, and from slope of Volcán de Chiriquí and near Bóquete in Chiriquí, western Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 126, Apr. 26, 1920).

Dasyprocta punctata dariensis Goldman†*

1913. *Dasyprocta punctata dariensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 11, Feb. 28, 1913.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 5,200 feet. *Range.*—From sea level to over 5,000 feet in Darién region, Panamá.

Dasyprocta punctata callida Bangs*

1901. *Dasyprocta callida* Bangs, Amer. Nat., vol. 35, p. 635, August 1901.

1946. *Dasyprocta punctata callida* R. Kellogg, Proc. Biol. Soc. Washington, vol. 59, p. 59, Mar. 11, 1946.

Type Locality.—Isla San Miguel, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Isla San Miguel.

Dasyprocta punctata bellula R. Kellogg†*

1946. *Dasyprocta punctata bellula* R. Kellogg, Proc. Biol. Soc. Washington, vol. 59, p. 59, Mar. 11, 1946.

Type Locality.—Isla San José, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from Isla San José only.

Dasyprocta coibae Thomas

1902. *Dasyprocta coibae* Thomas, Nov. Zool., vol. 9, p. 136, Apr. 10, 1902.

Type Locality.—Coiba Island, Panamá. *Range.*—Coiba Island.

Superfamily OCTODONTOIDEA

Family CAPROMYIDAE

Subfamily CAPROMYINAE

Genus CAPROMYS[61] Desmarest (hutias)

1822. *Capromys* Desmarest, Bull. Soc. Philom. Paris, p. 185, December 1822. (Type, *Capromys fournieri* Desmarest = *Isodon pilorides* Say.)

Subgenus CAPROMYS Desmarest

Capromys pilorides pilorides (Say)*

1822. *I[sodon] pilorides* Say, Journ. Acad. Nat. Sci. Philadelphia, vol. 2, p. 333, November 1822.

1822. *Capromys fournieri* Desmarest, Mém. Soc. Hist. Nat. Paris, vol. 1, p. 43, pl.

1848. *Capromys pilorides* Waterhouse, A natural history of the Mammalia, vol. 2, p. 287.

1884. *Capromys pilorides* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

Type Locality.—"South America or one of the West Indian islands." (Cuba.)

Range.—Recorded from San Diego de los Baños, Matanzas, Cardenas, Trinidad, El Guama, Daiquirí, Puerto Principe, Santiago de Cuba, and Bacanao (Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 73, May 1939).

Capromys pilorides relictus G. M. Allen

1911. *Capromys pilorides relictus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 207, July 1911.

Type Locality.—Casas Mountains, Nueva Gerona, Isle of Pines, Cuba.

Range.—Isle of Pines.

Subgenus MYSATELES[62] Lesson

1842. *Mysateles* Lesson, Nouveau tableau du règne animal, . . . Mammifères, p. 124. (Type, *Mysateles poeppingii* Lesson = *Capromys prehensilis* Poeppig.)

Capromys prehensilis prehensilis Poeppig*

1824. *Capromys prehensilis* Poeppig, Journ. Acad. Nat. Sci. Philadelphia, vol. 4, p. 11.

1884. *Capromys prehensilis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1939. *Mysateles prehensilis prehensilis* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 55, May 1939.

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[61] Revised by Chapman, Bull. Amer. Mus. Nat. Hist., vol. 14, pp. 313–323, November 12, 1901; and by Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, pp. 51–80, May 1939. The *Capromys elegans* of Cabrera (Bol. Soc. Española Hist. Nat. Madrid, vol. 1, p. 372, December 1901), based on a specimen supposed to have been collected in Cuba, proves to be a member of the Philippine genus *Phloeomys* (see Cabrera, Trab. Mus. Cienc. Nat., Madrid, No. 3, p. 30, 1912).

[62] Regarded as a valid subgenus by Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 54, May 1939.

Type Locality.—Wooded parts of southern Cuba. *Range.*—Cuba, from west end eastward to Trinidad; recorded from Trinidad, Cardenas, Matanzas, Santa Cruz del Norte, Santiago de las Vegas, Cabañas, San Diego de los Baños, "Berge S. Cubas, Partido de las Piedras, Macuriges, Masmariges" (Mohr, op. cit., p. 56).

Capromys prehensilis pallidus Peters

1865. *C[apromys] pallidus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1865, p. 384, footnote.

1939. *Mysateles prehensilis pallidus* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 58, May 1939.

Type Locality.—Cuba. *Range.*—Known from vicinity of Trinidad, Cuba.

Capromys prehensilis poeyi Guérin

1834. *Capromys poeyi* Guérin, Mag. Zool., Paris, Ann. 4, Cl. I, pl. 15.

1939. *Mysateles prehensilis poeyi* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 57, May 1939.

Type Locality.—Cuba. *Range.*—Recorded at Trinidad, Cuba.

Capromys prehensilis gundlachi Chapman†*

1901. *Capromys prehensilis gundlachi* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 317, Nov. 12, 1901.

1939. *Mysateles prehensilis gundlachi* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 59, May 1939.

Type Locality.—Nueva Gerona, Isle of Pines, Cuba. *Range.*—Isle of Pines.

Capromys melanurus melanurus Peters*

1864. *Capromys melanurus* Peters, Monatsb. Preuss. Akad. Wiss. Berlin, 1864, p. 384.

1884. *Capromys melanurus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1939. *Mysateles melanurus melanurus* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 59, May 1939.

Type Locality.—Manzanillo, Oriente Province, southeastern Cuba. *Range.*—Southeastern Cuba, in forests of Sierra Maestra, especially in eastern part of Oriente Province; recorded at Manzanillo, Turquino, Yao Arriba, Holguin, San Luis, Cuabitas, Portillo and Los Negros (Mohr, op. cit., p. 60).

Capromys melanurus rufescens (Mohr)

1939. *Mysateles melanurus rufescens* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 62, May 1939.

Type Locality.—Manzanillo, Oriente Province, southeastern Cuba. *Range.*—Known from type locality only.

Capromys nana G. M. Allen*

1917. *Capromys nana* G. M. Allen, Proc. New England Zool. Club, vol. 6, p. 54, Mar. 29, 1917.

1939. *Mysateles nana* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 63, May 1939.

Type Locality.—Sierra de Hato Nuevo, Matanzas Province, Cuba. *Range.*—Originally described from cave material; afterward found living (see G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 141, May 1918). Recorded also near Limones, Daiquirí and Cienago de Zapata south of Jaguey (Mohr, loc. cit.; and Morrison-Scott, Ann. Mag. Nat. Hist., ser. 11, vol. 3, p. 214, February 1939).

Genus GEOCAPROMYS[63] Chapman

1901. *Geocapromys* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 314, Nov. 12, 1901. (Type, *Capromys brownii* Fischer.)

1917. *Synodontomys* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 5, January 1917. (Type, *Capromys columbianus* Chapman.)

Geocapromys brownii brownii (Fischer) *

1830. *Capromys brownii* Fischer, Synopsis Mammalium, Addenda, p. 389 (=589).

1851. *Capromys brachyurus* Gosse, A naturalist's sojourn in Jamaica, p. 471. (Jamaica.)

1884. *Capromys brachyurus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

1901. *Capromys brownii* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 320, Nov. 12, 1901.

1917. *Geocapromys brownii* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 8, January 1917.

1939. *Geocapromys browni browni* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 76, May 1939.

Type Locality.—Jamacia. *Range.*—Jamaica.

Geocapromys brownii thoracatus (True) †*

1889. *Capromys brachyurus thoracatus* True, Proc. U. S. Nat. Mus., vol. 11 (1888), p. 469, Sept. 3, 1889.

1917. *G[eocapromys] thoracatus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 8, January 1917.

1939. *Geocapromys browni thoracatus* Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 77, May 1939.

Type Locality.—Little Swan Island, Gulf of Honduras. *Range.*—Known from Little Swan Island only.

Geocapromys ingrahami ingrahami (J. A. Allen) *

1891. *Capromys ingrahami* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 329, Aug. 31, 1891.

1917. *G[eocapromys] ingrahami* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 9, January 1917.

1934. *Geocapromys ingrahami ingrahami* Lawrence, Occ. Pap. Boston Soc. Nat. Hist., vol. 8, p. 192, Nov. 7, 1934.

Type Locality.—East Plana Cay, Plana Keys, Bahama Islands. *Range.*—Known from Plana Keys only.

Geocapromys ingrahami abaconis Lawrence

1934. *Geocapromys ingrahami abaconis* Lawrence, Occ. Pap. Boston Soc. Nat. Hist., vol. 8, p. 191, Nov. 7, 1934.

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[63] For generic status see Miller, Smithsonian Misc. Coll., vol. 82, No. 4, pp. 1–3, Dec. 9, 1929. Reviewed by Lawrence, Occ. Pap. Boston Soc. Nat. Hist., vol. 8, pp. 189–193, Nov. 7, 1934. *Geocapromys* regarded as a subgenus and revised by Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, pp. 75–80, May 1939.

Type Locality.—Imperial Lighthouse Caves, Hole in the Wall, Great Abaco Island, Bahama Islands. *Range.*—Known from cave remains on Great Abaco Island only.

Geocapromys ingrahami irrectus Lawrence

1934. *Geocapromys ingrahami irrectus* Lawrence, Occ. Pap. Boston Soc. Nat. Hist., vol. 8, p. 190, Nov. 7, 1934.

Type Locality.—"Burial Cave No. 1," Gordon Hill Caves, Crooked Island, Bahama Islands. *Range.*—Recorded also from remains in caves on Eleuthera Island, Long Island, and Exhuma Island (Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 79, May 1939).

Geocapromys columbianus (Chapman)*

1892. *Capromys columbianus* Chapman, Bull. Amer. Mus. Nat. Hist., vol. 4, p. 314, Dec. 29, 1892.

1917. *Geocapromys cubanus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 9, January 1917. (Sierra de Hato-Nuevo, Matanzas Province, Cuba.)

1918. *Geocapromys columbianus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 62, p. 145, May 1918.

Type Locality.—Cave near Trinidad, Santa Clara Province, Cuba. *Range.*—Known from cave remains only. Recorded also at Daiquirí, Oriente Province, Cuba (Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 80, May 1939).

Genus HEXOLOBODON Miller

1929. *Hexolobodon* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 19, Mar. 30, 1929. (Type, *Hexolobodon phenax* Miller.)

Hexolobodon phenax Miller†*

1929. *Hexolobodon phenax* Miller, Smithsonian Misc. Coll., vol. 81, No. 9. p. 20, Mar. 30, 1929.

Type Locality.—Small cave near St. Michel, Haiti. *Range.*—Known from cave remains only.

Subfamily PLAGIODONTINAE

Genus PLAGIODONTIA[64] F. Cuvier

1836. *Plagiodontia* F. Cuvier, Ann. Sci. Nat., Paris, ser. 2 (Zool.), vol. 6, p. 347. (Type, *Plagiodontia aedium* F. Cuvier.)

Plagiodontia aedium F. Cuvier*

1836. *Plagiodontia aedium* F. Cuvier, Ann. Sci. Nat., Paris, ser. 2 (Zool.), vol. 6, p. 347.

1884. *Plagiodontia aedium* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 600, Nov. 29, 1884.

Type Locality.—Dominican Republic. *Range.*—Recorded in living state near Miragoane, southwestern Peninsula of Haiti (Johnson, Proc. Biol. Soc. Washington, vol. 61, p. 70, June 16, 1948).

Plagiodontia ipnaeum Johnson†*

1929. *Plagiodontia aedium* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 18, Mar. 30, 1929. (Not F. Cuvier, 1836, p. 347.)

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[64] Species reviewed by Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, pp. 81–87, May 1939; and by Johnson, Proc. Biol. Soc. Washington, vol. 61, pp. 69–76, June 16, 1948.

1948. *Plagiodontia ipnaeum* Johnson, Proc. Biol. Soc. Washington, vol. 61, p. 72, June 16, 1948.

Type Locality.—Kitchen-midden deposit at a Ciguayan village site at Anadel, 2 kilometers east of Samaná, Samaná Province, Dominican Republic. *Range.*—Recorded from cave and kitchen-midden sites in Haiti and the Dominican Republic.

Plagiodontia hylaeum Miller†*

1927. *Plagiodontia hylaeum* Miller, Proc. U. S. Nat. Mus., vol. 72, p. 4, Sept. 30, 1927.

Type Locality.—Guarabo, 10 miles east of Jovero, Samaná Province, Dominican Republic. *Range.*—Recorded also at cave near Altamira, Puerto Plata Province, Dominican Republic; Sabana de la Mar, Samaná Province, Dominican Republic; and mountain near Jérémie, Haiti (Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 84, May 1939).

Plagiodontia spelaeum Miller†*

1929. *Plagiodontia spelaeum* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 18, Mar. 30, 1929.

Type Locality.—Cave near Atalaye plantation, 4 miles east of St. Michel, Haiti. *Range.*—Known from cave remains only.

Genus ISOLOBODON[65] J. A. Allen

1916. *Isolobodon* J. A. Allen, Ann. New York Acad. Sci., vol. 27, p. 19, Jan. 25, 1916. (Type, *Isolobodon portoricensis* J. A. Allen.)

1922. *Ithydontia* Miller, Smithsonian Misc. Coll., vol. 74, No. 3, p. 4, Oct. 16, 1922. (Type, *Ithydontia levir* Miller.)

Isolobodon portoricensis J. A. Allen*

1916. *Isolobodon portoricensis* J. A. Allen, Ann. New York Acad. Sci., vol. 27, p. 19, Jan. 25, 1916.

Type Locality.—Cueva de la Ceiba, near Utuado, Puerto Rico. *Range.*—Known from remains found chiefly in Indian deposits; Puerto Rico, St. Thomas, St. Croix, and Dominican Republic (See Miller, Proc. U. S. Nat. Mus., vol. 54, p. 508, Oct. 15, 1918; Smithsonian Misc. Coll., vol. 82, No. 5, pp. 7–8, Dec. 11, 1929).

Isolobodon levir (Miller)†*

1922. *Ithydontia levir Miller,* Smithsonian Misc. Coll., vol. 74, No. 3, p. 5, Oct. 16, 1922.

1929. *Isolobodon levir* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 14, Mar. 30, 1929.

Type Locality.—Large cave near St. Michel, Haiti. *Range.*—Known from remains found in caves and Indian deposits only.

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[65] Regarded as subgenus of *Plagiodontia* by Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 87, May 1939. Regarded as close to and possibly congeneric with *Plagiodontia* by Tate, Journ. Mamm., vol. 29, No. 2, p. 177, May 14, 1948.

Genus APHAETREUS[66] Miller

1922. *Aphaetreus* Miller, Smithsonian Misc. Coll., vol. 74, No. 3, p. 3, Oct. 16, 1922. (Type, *Aphaetreus montanus* Miller.)

Aphaetreus montanus Miller†*

1922. *Aphaetreus montanus* Miller, Smithsonian Misc. Coll., vol. 74, No. 3, p. 4, Oct. 16, 1922.

Type Locality.—Large cave near St. Michel, Haiti. *Range.*—Known from cave remains only.

Subfamily MYOCASTORINAE

Genus MYOCASTOR Kerr

1792. *Myocastor* Kerr, The animal kingdom . . . , p. 225. (Type, *Mus coypus* Molina.)

1805. *Myopotamus* É. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, vol. 6, p. 82. (Type *Myopotamus bonariensis* É. Geoffroy-Saint-Hilaire.)

Myocastor coypus bonariensis (É. Geoffroy-Saint-Hilaire)*

1805. *Myopotamus bonariensis* É. Geoffroy-Saint-Hilaire, Ann. Mus. Hist. Nat., Paris, vol. 6, p. 82.

1917. *Myocastor coypus bonariensis* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 20, p. 100, July 1917.

Type Locality.—Argentina. *Range.*—Feral coypus recorded from Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 248, Nov. 22, 1943), Ohio (Petrides and Leedy, Journ. Mamm., vol. 29, No. 2, p. 182, May 14, 1948), Montana (Jellison, Journ. Mamm., vol. 26, No. 4, p. 432, Feb. 12, 1946), Washington and western Oregon (Larrison, Murrelet, vol. 24, No. 1, pp. 3–9, Apr. 22, 1943) and British Columbia (Holdom, Murrelet, vol. 25, No. 2, p. 30, Sept. 19, 1944).

Family ECHIMYIDAE

Subfamily ECHIMYINAE

Genus HOPLOMYS J. A. Allen

1908. *Hoplomys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 649, Oct. 13, 1908. (Type, *Hoplomys truei* J. A. Allen.)

Hoplomys gymnurus goethalsi Goldman†*

1912. *Hoplomys goethalsi* Goldman, Smithsonian Misc. Coll., vol. 56, No. 36, p. 10, Feb. 19, 1912.

1920. *Hoplomys gymnurus goethalsi* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 123, Apr. 24, 1920.

Type Locality.—Río Indio, near Gatún, Canal Zone, Panamá. *Range.*—Recorded also from Tacarcuna (Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 370, June 9, 1916) and Cana in Darién, Panamá (Goldman, 1920, loc. cit.).

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[66] Regarded as a subgenus of *Plagiodontia* by Mohr, Mitt. Zool. Mus. Hamburg, vol. 48, p. 88, May 1939. Regarded as a generic offshoot of subfamily Plagiodontinae by Tate, Journ. Mamm., vol. 29, No. 2, p. 177, May 14, 1948.

Hoplomys gymnurus truei J. A. Allen

1908. *Hoplomys truei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 650, Oct. 13, 1908.

1920. *Hoplomys gymnurus truei* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 124, Apr. 24, 1920.

Type Locality.—Lavala (Savala), east slope of highlands, Matagalpa, Nicaragua. Altitude, 800 feet. *Range.*—Recorded also from Santa Teresa Peralta in Cartago and Suerre in Limón, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 422, Dec. 31, 1946).

Genus PROECHIMYS[67] J. A. Allen

1899. *Proechimys* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 12, p. 264, Dec. 26, 1899. (Type, *Echimys trinitatis* J. A. Allen and Chapman.)

Proechimys semispinosus burrus Bangs*

1901. *Proechimys burrus* Bangs, Amer. Nat., vol. 35, p. 640, August 1901.

1920. *Proechimys semispinosus burrus* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 120, Apr. 24, 1920. (Regarded as subspecies of *semispinosus* by Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, p. 316, Dec. 10, 1948.)

Type Locality.—Isla San Miguel, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from Isla San Miguel only.

Proechimys semispinosus centralis (Thomas)*

1889. *Echinomys semispinosus* True, Proc. U. S. Nat. Mus., vol. 11 (1888), p. 467, Sept. 3, 1889. (Not of Tomes, 1860.)

1896. *Echinomys centralis* Thomas, Ann. Mag. Nat. Hist., ser. 6, vol. 18, p. 312, October 1896.

1920. *Proechimys semispinosus centralis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 120, Apr. 24, 1920. (Regarded as subspecies of *semispinosus* by Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, p. 316, Dec. 10, 1948.)

Type Locality.—San Emilio, south end of Lake Nicaragua, Nicaragua. *Range.*—From Río Grande in Nicaragua south to Cordillera Vulcánica in Costa Rica and west to Lake Nicaragua (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 421, Dec. 31, 1946).

Proechimys semispinosus goldmani Bole

1937. *Proechimys semispinosus goldmani* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 178, Aug. 31, 1937. (Regarded as subspecies of *semispinosus* by Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, p. 316, Dec. 10, 1948.)

Type Locality.—Altos Cacao, on ridge between Río Mariato and Río Negro, Mariato–Suay Lands, Veraguas, Panamá. *Range.*—Azuero Peninsula of Panamá, probably on both slopes of mountains, but known only from western (Veraguas) side.

Proechimys semispinosus ignotus R. Kellogg†*

1946. *Proechimys semispinosus ignotus* R. Kellogg, Proc. Biol. Soc. Washington, vol. 59, p. 61, Mar. 11, 1946. (Regarded as a member of the *quad-*

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[67] For discussion of Central American subspecies, see Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, pp. 316–317, 319, Dec. 10, 1948.

ruplicatus group by Hershkovitz, Proc. U. S. Nat. Mus., vol. 97, p. 138, Jan. 6, 1948; and as a subspecies of *semispinosus* by Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, pp. 316, 317, Dec. 10, 1948.)

Type Locality.—Isla San José, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from Isla San José only.

Proechimys semispinosus panamensis Thomas*

1900. *Proechimys centralis panamensis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 220, February 1900.

1900. *Proechimys centralis chiriquinus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 220, February 1900. (Bogava [=Bugaba], foothills of Volcán de Chiriquí, Chiriquí, Panamá. Altitude, 800 feet.)

1920. *Proechimys semispinosus panamensis* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 120, Apr. 24, 1920. (Regarded as a subspecies of *semispinosus* by Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, p. 316, Dec. 10, 1948.)

Type Locality.—Savanna of Panamá (near city of Panamá), Panamá. *Range.*—Eastern Panamá (recorded from Tacarcuna (2,650 feet), Boca de Cupe, Tapalisa, and El Real in Darién by Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 370, June 9, 1916; from Río Jesucito and Río Esnape in Darién by G. M. Allen and Barbour, Bull. Mus. Comp. Zool., vol. 65, No. 8, p. 264, February 1923; from Cana in Darién and Gatún in Canal Zone by Goldman, op. cit., p. 122; and from Barro Colorado Island in Canal Zone by Enders, Bull. Mus. Comp. Zool., vol. 78, No. 4, p. 457, October 1925) and western Panamá (recorded from Boquerón, Bugaba and Divalá in Chiriquí by Goldman, op. cit., p. 122). Recorded also from Coto, Puntarenas, southwestern Costa Rica (Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 13, Oct. 8, 1943) ; and from San José and Puntarenas Provinces in western Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 421, Dec. 31, 1946).

Proechimys semispinosus rubellus Hollister†*

1914. *Proechimys rubellus* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 57, Mar. 20, 1914.

1920. *Proechimys semispinosus rubellus* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 120, Apr. 24, 1920. (Regarded as a subspecies of *semispinosus* by Moojen, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 19, p. 316, Dec. 10, 1948.)

Type Locality.—Angostura Valley, Cartago, Costa Rica. *Range.*—Río Reventazón and Río Pacuare Valleys, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 421, Dec. 31, 1946). Recorded also from San Carlos, Alajuela, Costa Rica (Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 476, p. 14, Oct. 8, 1943).

Genus ECHIMYS[68] F. Cuvier

1809. *Echimys* F. Cuvier, Bull. Soc. Philom. Paris, No. 24, p. 394, September 1809. (Type, by subsequent selection (Fleming, The philosophy of zoology; . . . , vol. 2, p. 191, May or June, 1822), *Myoxus chrysurus* Zimmermann.)

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[68] For use of the name *Echimys* in place of *Loncheres* see Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 18, p. 71, July 1916. According to J. A. Allen, Proc. Biol. Soc Washington,

1811. *Loncheres* Illiger, Prodromus systematis Mammalium et Avium . . . , p. 90. (Type by monotypy, *Myoxus chrysurus* Zimmermann.)

Echimys armatus (I. Geoffroy-Saint-Hilaire) *

1838. *Nelomys armatus* I. Geoffroy-Saint-Hilaire, Ann. Sci. Nat., Paris, ser. 2, vol. 10, p. 125.

1884. *Loncheres armatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 550, Nov. 29, 1884.

1904. [*Echimys*] *armatus* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 2, p. 503.

Type Locality.—Cayenne, French Guiana. *Range.*—Recorded from Martinique, Lesser Antilles.

Genus DIPLOMYS Thomas

1916. *Diplomys* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 18, p. 240, August 1916. (Type, *Loncheres caniceps* Günther.)

Diplomys labilis (Bangs) *

1901. *Loncheres labilis* Bangs, Amer. Nat., vol. 35, p. 638, August 1901.

1916. *D*[*iplomys*] *labilis* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 18, p. 296, September 1916.

Type Locality.—Isla San Miguel, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from Isla San Miguel only.

Diplomys darlingi (Goldman) †*

1912. *Isothrix darlingi* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 12, Sept. 20, 1912.

1916. *D*[*iplomys*] *darlingi* Thomas, Ann. Mag. Nat. Hist., ser. 8, vol. 18, p. 296, September 1916.

Type Locality.—Marraganti, near Real de Santa Maria, on Río Tuyra, Darién, eastern Panamá. *Range.*—Recorded also from Tapalisa in Darién (Anthony, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 370, June 9, 1916) and from Ancón, Canal Zone, Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 125, Apr. 24, 1920).

Genus HETEROPSOMYS Anthony

1916. *Heteropsomys* Anthony, Ann. New York Acad. Sci., vol. 27, p. 202, Aug. 9, 1916. (Type, *Heteropsomys insulans* Anthony.)

1916. *Neopsomys* Miller, Smithsonian Misc. Coll., vol. 16, No. 12, p. 2, Dec. 7, 1916. (Accidental renaming of *Heteropsomys*.)

Heteropsomys insulans Anthony*

1916. *Heteropsomys insulans* Anthony, Ann. New York Acad. Sci., vol. 27, p. 202, Aug. 9, 1916.

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vol. 29, p. 206, Sept. 22, 1916, the correct name for this genus is *Loncheres;* but the type of *Echimys* was not fixed on the species *spinosus* by subsequent selection as defined in Opinion 6 of the International Commission of Zoological Nomenclature, Smithsonian Inst. Spec. Publ. No. 1938, pp. 7–9, July 1910.

Type Locality.—Utuado, Puerto Rico. *Range.*—Known from cave remains only.

Genus HOMOPSOMYS[69] Anthony

1917. *Homopsomys* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 187, Jan. 29, 1917. (Type, *Homopsomys antillensis* Anthony.)

Homopsomys antillensis Anthony

1917. *Homopsomys antillensis* Anthony, Bull. Amer. Mus. Nat. Hist., vol. 37, p. 187, Jan. 29, 1917.

Type Locality.—Utuado, Puerto Rico. *Range.*—Known from cave remains only.

Genus BROTOMYS Miller

1916. *Brotomys* Miller, Smithsonian Misc. Coll., vol. 66, No. 12, p. 6, Dec. 7, 1916. (Type, *Brotomys voratus* Miller.)

Brotomys voratus Miller†* (the "mohuy" of Oviedo)

1916. *Brotomys voratus* Miller, Smithsonian Misc. Coll., vol. 66, No. 12, p. 7, Dec. 7, 1916.

Type Locality.—San Pedro de Macoris, Dominican Republic. *Range.*—Known only from remains found in caves, and in Indian and owl deposits, but probably not yet extinct at beginning of Spanish occupation and possibly now existing in interior of Dominican Republic (see Miller, Smithsonian Misc. Coll., vol. 82, No. 5, pp. 13–14, Dec. 11, 1927; and vol. 82, No. 15, pp. 1–2, 6–7, Dec. 24, 1930).

Brotomys contractus Miller†*

1929. *Brotomys ? contractus* Miller, Smithsonian Misc. Coll., vol. 81, No. 9, p. 13, Mar. 30, 1929.

Type Locality.—Small cave near St. Michel, Haiti. *Range.*—Known from cave remains only.

Genus BOROMYS Miller

1916. *Boromys* Miller, Smithsonian Misc. Coll., vol. 66, No. 12, p. 7, Dec. 7, 1916. (Type, *Boromys offella* Miller.)

Boromys offella Miller†*

1916. *Boromys offella* Miller, Smithsonian Misc. Coll., vol. 66, No. 12, p. 8, Dec. 7, 1916.

Type Locality.—Maisí, Oriente, Cuba. *Range.*—Known from remains found in caves and Indian deposits only.

Boromys torrei G. M. Allen*

1917. *Boromys torrei* G. M. Allen, Bull. Mus. Comp. Zool., vol. 61, p. 6, January 1917.

Type Locality.—Cavern in Sierra de Hato Nuevo, Matanzas Province, Cuba. *Range.*—Known from remains found in caves only.

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[69] Subsequently regarded by Anthony (Mem. Amer. Mus. Nat. Hist., new ser., vol. 2 (June), p. 409, Oct. 12, 1918) as probably not distinct from *Heteropsomys*.

Order CETACEA [70] (whales and porpoises)

Suborder ODONTOCETI (toothed whales)

Superfamily PHYSETEROIDEA

Family ZIPHIIDAE [71]

Genus BERARDIUS Duvernoy

1851. *Berardius* Duvernoy, Ann. Sci. Nat., Paris, ser. 3 (Zool.), vol. 15, p. 52. (Type, *Berardius arnouxii* Duvernoy).

Berardius bairdii Stejneger†* (Baird's beaked whale)

1883. *Berardius bairdii* Stejneger, Proc. U. S. Nat. Mus., vol. 6, p. 75, June 30, 1883.

1884. *Berardius bairdii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884).

Type Locality.—Stare Gavan, Bering Island, Commander Islands, Bering Sea. *Range.*—In eastern North Pacific recorded from St. Matthew Islands (Hanna, Journ. Mamm., vol. 1, No. 3, p. 120, June 19, 1920) and St. George Island, Pribilof Group, Bering Sea (Hanna, Journ. Mamm., vol. 4, No. 4, p. 209, Nov. 1, 1923), south to Centerville Beach, near Ferndale, Humboldt County (True, U. S. Nat. Mus. Bull. 73, p. 77, Sept. 28, 1910), and Santa Cruz and Monterey Bay, Calif. (Davidson, Journ. Mamm., vol. 10, No. 4, p. 357, Nov. 11, 1929).

Genus MESOPLODON Gervais

1850. *Mesoplodon* Gervais, Ann. Sci. Nat., Paris, ser. 3 (Zool.), vol. 14, p. 16, July 1850. (Type, *Delphinus sowerbiensis* Blainville = *Physeter bidens* Sowerby.)

1922. *Paikea* Oliver, Proc. Zool. Soc. London, 1922, pt. 3, p. 574, Sept. 28, 1922. (Type, *Berardius hectori* Gray.)

Mesoplodon bidens (Sowerby)

1804. *Physeter bidens* Sowerby, The British miscellany: . . . , p. 1.

1878. *M[esoplodon] bidens* Flower, Proc. Zool. Soc. London, 1877, pt. 4, p. 684, March 1878.

1884. *Mesoplodon sowerbiensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.

1901. [*Mesoplodon*] *bidens* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 18, Mar. 6, 1901.

Type Locality.—Coast of Elginshire, Scotland. *Range.*—In western North Atlantic recorded from Nantucket Island, Mass. (True, U. S. Nat. Mus. Bull. 73, p. 4, Sept. 28, 1910).

Mesoplodon densirostris (Blainville)*

1817. *Delphinus densirostris* Blainville, *in* Nouveau Dictionnaire d'Histoire Naturelle . . . , ed. 2, vol. 9, p. 178.

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[70] For classification see Winge, Vid Med. naturh. For., Kjöbenhavn, vol. 70, pp. 59–142, 1918, and Smithsonian Misc. Coll., vol. 72, No. 8, pp. 1–97, July 30, 1921. Miller, Smithsonian Misc. Coll., vol. 76, No. 5, pp. 1–70, Aug. 31, 1923. Slijper, Die Cetaceen Vergleichend-Anatomisch und Systematisch, Zool. Inst. Reichsuniversität, Utrecht, pp. xv + 590, 1936.

[71] Revised by True, U. S. Nat. Mus. Bull. 73, pp. 1–89, pls. 42, Sept. 28, 1910.

1878. *M[esoplodon] densirostris* Flower, Proc. Zool. Soc. London, 1877, pt. 4, p. 684, March 1878.

1934. *Dioplodon densirostris* Iredale and Troughton, Mem. Australian Mus. No. 6, p. 61, May 4, 1934.

Type Locality.—Unknown. *Range.*—In western North Atlantic recorded from Peggy's Cove, about 30 miles south of Halifax, Nova Scotia (Raven, Bull. Amer. Mus. Nat. Hist., vol. 80, p. 23, Sept. 1, 1942); Annisquam, Mass.; Corson's Inlet, N. J.; and Boque Banks, near Beaufort, N. C. (Ulmer, Proc. Acad. Nat. Sci. Philadelphia, vol. 93, p. 118, Sept. 11, 1941).

Mesoplodon europaeus (Gervais)*

1848–52. *Diplodon europaeus* Gervais, Zoologie et Paléontologie Françaises . . . , ed. 1, p. 4.

1878. *M[esoplodon] europaeus* Flower, Proc. Zool. Soc. London, 1877, pt. 4, p. 684, March 1878.

1910. *Mesoplodon europaeus* True, U. S. Nat. Mus. Bull. 73, p. 11, Sept. 28, 1910.

Type Locality.—English Channel. *Range.*—In western North Atlantic recorded from Rockaway Beach, Long Island, N. Y. (Raven, Amer. Mus. Nov., No. 905, p. 2, Jan. 14, 1935); North Long Branch and Atlantic City, N. J. (True, *op. cit.*, p. 12); St. Augustine (Ulmer, Journ. Mamm., vol. 28, No. 2, p. 185, June 1, 1947) and Middle Key, Fla. (Raven, *op. cit.*, p. 7).

Mesoplodon mirus True†* (True's beaked whale)

1913. *Mesoplodon mirum* True, Smithsonian Misc. Coll., vol. 60, No. 25, p. 1, Mar. 14, 1913.

1919. *Mesoplodon mirus* Harmer, Report on Cetacea stranded on the British Coasts during 1918, British Mus. (Nat. Hist.), p. 18, Mar. 22, 1919.

Type Locality.—Beaufort Harbor, Carteret County, N. C. *Range.*—In western North Atlantic recorded from South Gut, St. Anne's Bay, Cape Breton Island, Nova Scotia (G. M. Allen, Journ. Mamm., vol. 20, No. 2, p. 259, May 15, 1939), south to Bird Shoal, Beaufort Harbor, N. C. (for additional records see Brimley, Journ. Mamm., vol. 26, No. 4, p. 434, Feb. 12, 1945; and Ulmer, Proc. Acad. Nat. Sci. Philadelphia, vol. 93, p. 107, Sept. 11, 1941).

Mesoplodon bowdoini Andrews*

1908. *Mesoplodon bowdoini* Andrews, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 203, Feb. 26, 1908.

Type Locality.—New Brighton Beach, Canterbury Province, New Zealand. *Range.*—In eastern North Pacific recorded from near La Jolla, San Diego County, Calif. (Hubbs, Journ. Mamm., vol. 27, No. 3, p. 245, Aug. 14, 1946).

Mesoplodon stejnegeri True†* (Stejneger's beaked whale)

1885. *Mesoplodon stejnegeri* True, Proc. U. S. Nat. Mus., vol. 8, p. 585, Nov. 21, 1885.

1910. *Mesoplodon stejnegeri* True, U. S. Nat. Mus. Bull. 73, p. 24, Sept. 28, 1910.

Type Locality.—Bering Island, Commander Islands, Bering Sea. *Range.*—In eastern North Pacific recorded from Bering Sea south to beach at mouth of Waatch River, Clallam County, Wash. (Scheffer and Slipp, Amer. Midl. Nat., vol. 39, No. 2, p. 267, March 1948) and South Beach, Yaquina Bay, near Newport, Oreg. (True, loc. cit.).

Genus ZIPHIUS G. Cuvier

1823. *Ziphius* G. Cuvier, Recherches sur les ossemens fossiles . . . , ed. 2, vol. 5, p. 352 (ed. 3, vol. 5, p. 352, 1825). (Type, *Ziphius cavirostris* G. Cuvier.)

Ziphius cavirostris G. Cuvier* (Cuvier's beaked whale)

1823. *Ziphius cavirostris* G. Cuvier, Recherches sur les ossemens fossiles . . . , ed. 2, vol. 5, p. 352 (ed. 3, vol. 5, p. 352, 1825).

1865. *Hyperodon* [sic] *semijunctus* Cope†, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 280. (Charleston, S. C.)

1883. *Ziphius grebnitzkii* Stejneger†, Proc. U. S. Nat. Mus., vol. 6, p. 77, June 30, 1883. (Bering Island, Commander Islands, Bering Sea.)

1884. *Ziphius cavirostris, Z. semijunctus,* and *Z. grebnitzkii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.

Type Locality.—Near Fos, Bouches-du-Rhône, France. *Range.*—In western North Atlantic recorded from Newport, R. I., south to St. Simon Island, Ga. (True, U. S. Nat. Mus. Bull. 73, p. 31, Sept. 28, 1910. For additional records see Ulmer, Proc. Acad, Nat. Sci. Philadelphia, vol. 93, pp. 119–120, Sept. 11, 1941); in eastern North Pacific recorded from Kiska Harbor, Alaska (Davidson, Journ. Mamm., vol. 10, No. 4, p. 357, Nov. 11, 1929), Vancouver Island (Cowan and Hatter, Murrelet, vol. 21, No. 1, p. 9, Apr. 30, 1940; Cowan, Journ. Mamm., vol. 26, No. 1, pp. 93–94, Feb. 23, 1945), near Big Flat, Humboldt County, Calif. (Orr, Journ. Mamm., vol. 29, No. 4, p. 420, Dec. 31, 1948), and Del Mar, San Diego County, Calif. (Hubbs, Journ. Mamm., vol. 27, No. 3, p. 243, Aug. 14, 1946).

Genus HYPEROODON Lacépède

1804. *Hyperoodon* Lacépède, Histoire naturelle des cétacées, . . . , p. XLIV. (Type, *Hyperoodon butskopf* Lacépède=*Balaena ampullata* Forster.)

Hyperoodon ampullatus (Forster)* (bottlenose)

1770. *Balaena ampullata* Forster *in* Kalm, Travels into North America; . . . , vol. 1, p. 18, footnote. (Based on "beaked whale" of Pennant, The British Zoology, pt. 3, p. 43 [=p. 59, pl. 5, fig. 1], 1766.)

1776. *Balaena rostrata* O. F. Müller, Zoologiae Danicae Prodromus, . . . , p. 7.

1884. *Hyperoodon rostratus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.

1902. *Hyperoodon ampullatus* Rhoads, Science, new ser., vol. 15, p. 756, May 9, 1902.

Type Locality.—Maldon, Essex, England. *Range.*—In western North Atlantic recorded from Davis Strait (Brown, Proc. Zool. Soc. London, 1868, pt. 3, p. 556, March 1869), south side of lower St. Lawrence River near Cape Martin, Kamouraska County, Quebec (Beaugé, Ann. Rep. Provancher Soc. Nat. Hist., Quebec (French edition only), pp. 23–30, July 14, 1942), North Dennis, Mass.

(J. A. Allen, Bull. Mus. Comp. Zool., vol. 1, p. 205, 1869), and Narragansett Bay near Tiverton, R. I. (Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 31, 1869).

Family PHYSETERIDAE (sperm whales)

Genus PHYSETER Linnaeus

1758. *Physeter* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 76. (Type, *Physeter catodon* Linnaeus.)

Physeter catodon Linnaeus* (sperm whale)

1758. [*Physeter*] *catodon* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 76.
1884. *Physeter macrocephalus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.
1911. *Physeter catodon* Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 157, Mar. 22, 1911.

Type Locality.—Kairston, Orkney Islands (Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 157, Mar. 22, 1911). *Range.*—In western North Atlantic from Iceland (International Whaling Statistics, No. 15, Oslo, p. 9, 1941) and Davis Straits (International Whaling Statistics, No. 2, Oslo, p. 42, 1931) south to Gulf of Mexico, West Indies, Lesser Antilles and coast of Venezuela (Townsend, Zoologica, New York Zool. Soc., vol. 19, No. 1, pl. 2, Apr. 3, 1935); in eastern North Pacific from Pribilof Islands, Bering Sea (Preble, North Amer. Fauna No. 46, p. 116, June 27, 1923), south to Golfo de Panamá (Townsend, loc. cit.).

Family KOGIIDAE (pigmy sperm whales)

Genus KOGIA Gray

1846. *Kogia* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 22. (Type, *Physeter breviceps* Blainville.)

Kogia breviceps (Blainville)* (pigmy sperm whale)

1833. *Physeter breviceps* Blainville, Ann. d'Anat. et de Physiol., vol. 2, p. 337.
1846. *Kogia breviceps* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 22.
1871. *Kogia floweri* Gill†, Amer. Nat., vol. 4, p. 738, February 1871. (Off Mazatlán, Sinaloa, México.)
1884. *Kogia breviceps* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.

Type Locality.—Region of Cape of Good Hope, Union of South Africa. *Range.*—In western North Atlantic recorded from Halifax Harbor, Nova Scotia (Piers, Proc. and Trans. Nova Scotian Inst. Sci., vol. 15, pp. 95–114, 1923), south to Jupiter Inlet, Florida (G. M. Allen, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, pp. 19–23, Dec. 8, 1941); and in eastern North Pacific from Grayland, Wash. (Scheffer and Slipp, Amer. Midl. Nat., vol. 39, No. 2, p. 307, March 1948) and Hawaiian Islands (Edmondson, Journ. Mamm., vol. 29, No. 1, p. 76, Feb. 13, 1948) south to near Mazatlán, Sinaloa, México (Gill, Amer. Nat., vol. 4, p. 738, February 1871).

Superfamily DELPHINOIDEA

Family MONODONTIDAE

Subfamily DELPHINAPTERINAE

Genus DELPHINAPTERUS Lacépède

1804. *Delphinapterus* Lacépède, Histoire naturelle des cétacées, . . . , p. XLI. (Type, *Delphinapterus beluga* Lacépède=*Delphinus leucas* Pallas.)

Delphinapterus leucas (Pallas)* (white whale)

1776. *Delphinus leucas* Pallas, . . . Reise durch verschiedene Provinzen des Russischen Reichs, vol. 3, book 1, p. 85, footnote.
1812. *D[elphinapterus] leucas* G. Cuvier, Ann. Mus. Hist. Nat. Paris, vol. 19, p. 13.
1822. *Delphinus canadensis* Desmarest, Mammalogie, . . . , pt. 2, p. 516, [*in* Encyclopédie méthodique, . . .]. (Seas of Canada.)
1865. *Beluga rhinodon* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 278. (Upernavik, Greenland.)
1865. *Beluga declivis* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 278.
1865. *Beluga concreta* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 278.
1866. *Beluga angustata* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 293.
1935. *Delphinapterus freimani* Klumov, Biulleten' rybnogo Khoziaistvo S.S.S.R. (Sea Fishery Economics in U.S.S.R.), Moscou, No. 7, pp. 26–28. (White Sea, northeastern U.S.S.R.)

Type Locality.—Mouth of Obi [Ob] River, northeastern Siberia, U. S. S. R. *Range.*—In western North Atlantic recorded from Ellesmere Island (lat. 81°35′ N.), Greenland, Lancaster Sound, Baffin Bay, Davis Strait, Foxe Basin, Hudson Strait, Hudson Bay, and south along Labrador coast, regularly to north shore of Gulf of St. Lawrence (Anderson, Nat. Mus. Canada Bull. 102 (1946) p. 86, Jan. 24, 1947); straggling southward to Cape Cod, Mass. (True, U. S. Nat. Mus. Bull. 36, p. 188, Aug. 8, 1889); westward to Coronation Gulf, Franklin Bay, Cape Bathurst, and vicinity of mouth of Mackenzie River (Preble, North Amer. Fauna No. 27, p. 128, Oct. 26, 1908).

Delphinapterus dorofeevi Barabash and Klumov*

1935. *Delphinapterus dorofeevi* Barabash and Klumov, Biulleten' rybnogo Khoziaistvo S.S.S.R. (Sea Fishery Economics in U.S.S.R.), Moscou, No. 11, p. 24.

Type Locality.—Okhotsk Sea. *Range.*—Recorded only from Okhotsk Sea (Barabash, Journ. Mamm., vol. 18, No. 4, p. 508, Nov. 14, 1937). Presumably enters Bering Sea, and may represent form recorded at Point Barrow (Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 34, Mar. 24, 1900), Eschscholtz Bay and Pastolik, Alaska (True, U. S. Nat. Mus. Bull. 36, p. 149, Aug. 8, 1889), Yukon River (Dall, Science, new ser., vol. 5, No. 126, p. 843, May 28, 1897), Nushagak River on Bristol Bay and about mouth of Cook Inlet, Alaska (Osgood, North Amer. Fauna No. 24, p. 27, Nov. 23, 1904).

Subfamily MONODONTINAE

Genus MONODON Linnaeus

1758. *Monodon* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 75. (Type, *Monodon monoceros* Linnaeus.)

Monodon monoceros Linnaeus* (narwhal)

1758. [*Monodon*] *monoceros* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 75.
1884. *Monodon monoceros* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.

Type Locality.—Arctic seas. *Range.*—Arctic seas; north in summer on east coast of Greenland, west coast of Greenland, and eastern coast of Ellesmere Island to Smith Sound, Buchanan Bay (Bache Peninsula about lat. 79° N.), Kane Basin, and Kennedy Channel to lat. 81°35′ N. in migration; south in Baffin Bay, Davis Strait, Hudson Strait, and Atlantic coast of Labrador; common in Lancaster Sound and Eclipse Sound (Bylot Island) during migrations; west in eastern Canadian Arctic to Prince Regent Sound (east side of Somerset Island) and Boothia Peninsula; rare in northern parts of Hudson Bay (Anderson, Nat. Mus. Canada Bull. 102, (1946) p. 87, Jan. 24, 1947). Recorded also from near Cape Halkett, Harrison Bay, at mouth of Colville River, lat. 71° N., long. 151° W., northern coast of Alaska (Huey, Journ. Mamm., vol. 33, No. 4, p. 496, Nov. 19, 1952).

Family DELPHINIDAE[72] (porpoises)

Subfamily DELPHININAE

Genus STENELLA Gray

1866. *Stenella* Gray, Proc. Zool. Soc. London, 1866, pt. 2, p. 213, September 1866. (Type, *Steno attenuatus* Gray. For use of this name in place of *Prodelphinus* Gervais, see Oliver, Proc. Zool. Soc. London, 1922, pt. 3, p. 582, Sept. 28, 1922.)
1880. *Prodelphinus* Gervais, *in* van Beneden and Gervais, Ostéographie des cétacés vivants et fossiles, p. 604. (Type, *Delphinus marginatus* Duvernoy.)

Stenella attenuata (Gray)*

1846. *Steno attenuatus* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 44.
1934. *Stenella attenuata* Iredale and Troughton, Mem. Australian Mus., No. 6, p. 66, May 4, 1934.

Type Locality.—Unknown. *Range.*—In eastern North Pacific recorded at Honolulu, Hawaiian Islands (True, U. S. Comm. Fish and Fisheries Bull., 1903, pp. 41–45, 1903).

Stenella frontalis (G. Cuvier)*

1829. *D*[*elphinus*] *frontalis* G. Cuvier, Le règne animal, . . . , ed. 2, vol. 1, p. 288, April 1829.
1836. *Delphinus fraenatus* F. Cuvier, De l'histoire naturelle des cétacés, . . . , p. 155, pl. 10, fig. 1. (Thirty leagues south of Cape

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[72] Revised by True, U. S. Nat. Mus. Bull. 36, pp. 1–191, pls. 47, Aug. 8, 1889.

Verde Islands, North Atlantic Ocean. Regarded as identical with *frontalis* by Fraser, Atlantide Report No. 1 (Scientific results of the Danish expedition to the coasts of tropical West Africa 1945–1946), p. 74, 1950.)

1842. *Delphinus fraenatus* C. F. Cuvier, *in* É. Geoffroy-Saint-Hilaire and F. Cuvier, Histoire Naturelle des Mammifères, . . . , vol. 7, Table Générale et Méthodique, p. 6. (Described and figured in same work by F. Cuvier, vol. 6, pl., livr. 58, text, livr. 60, September 1829.)

1846. *Delphinus doris* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, Nos. 13–14, p. 39, pl. 20. (Locality unknown. Regarded as identical with *frontalis* by Fraser, Atlantide Report No. 1 (Scientific results of the Danish expedition to the coasts of tropical West Africa 1945–1946), p. 74, 1950.)

1950. *Stenella frontalis* Fraser, Atlantide Report No. 1 (Scientific results of the Danish expedition to the coasts of tropical West Africa 1945–1946), p. 61, 1950.

Type Locality.—Off Cape Verde Islands, North Atlantic Ocean. *Range.*—In western North Atlantic recorded from Sebastian and Cocoanut Grove, Fla. (G. M. Allen, Journ. Mamm., vol. 6, No. 1, p. 59, Feb. 9, 1925); and Fort Macon, N. C. (USNM 12058).

Stenella graffmani (Lönnberg)*

1934. *Prodelphinus graffmani* Lönnberg, Arkiv för Zool., vol 26 A, No. 19, p. 1, Apr. 24, 1934.

1940. *Stenella graffmani* Kellogg, Nat. Geogr. Mag., vol. 77, No. 1, p. 85, January 1940.

Type Locality.—Off the beach approximately 20 miles north of Acapulco, Guerrero, México. *Range.*—In eastern North Pacific recorded from type locality, Golfo de Panamá (USNM 261427), Islas Secas in Golfo de Chiriquí (USNM 259311), and near Gorgona Island off west coast of Colombia (USNM 258641).

Stenella longirostris (Gray)*

1828. *Delphinus longirostris* Gray, Spicilegia Zoologica, . . . , pt. 1, p. 1.

1889. *Prodelphinus longirostris* True, U. S. Nat. Mus. Bull. 36, p. 75, Aug. 8, 1889.

1934. *Stenella longirostris* Iredale and Troughton, Mem. Australian Mus. No. 6, p. 66, May 4, 1934.

Type Locality.—Unknown (Not Cape of Good Hope as ordinarily cited). *Range.*—Recorded in eastern North Pacific between Panamá and Galapagos Islands (USNM 23302).

Stenella microps (Gray)*

1846. *Delphinus microps* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 42, pl. 25.

Type Locality.—Unknown. *Range.*—In eastern North Pacific recorded from María Madre, Tres Marías Islands, off Nayarit, México (USNM 88976).

Stenella plagiodon (Cope)†*

1866. *Delphinus plagiodon* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, p. 296.

1889. *Prodelphinus plagiodon*, True, U. S. Nat. Mus. Bull. 36, pp. 66, 164, Aug. 8, 1889.

1940. *Stenella plagiodon* Kellogg, Nat. Geogr. Mag., vol. 77, No. 1, p. 83, January 1940.

Type Locality.—Unknown. *Range.*—In western North Atlantic recorded from off Cape Hatteras, N. C. (True, op. cit., p. 165), off Charleston, S. C. (USNM 253598), 50 miles off coast of Georgia (USNM 261364), Miami (USNM 357833) and Pensacola, Fla. (USNM 21915), channel in front of Port Aransas, Tex., in Gulf of Mexico (Gunter, Journ. Mamm., vol. 22, No. 4, p. 447, Nov. 13, 1941), and Golfo de San Blas, Panamá (USNM 254447).

Stenella styx (Gray)*

1846. *Delphinus styx* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1 (Mammalia), pt. 3, p. 39, pl. 21.

1846. *Delphinus euphrosyne* Gray, *in* Richardson and Gray, The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 40, pl. 22. (Locality unknown.)

1884. *Prodelphinus euphrosyne* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

1951. *Stenella styx* Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian Mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 733, Nov. 19, 1951.

Type Locality.—West coast of Africa. *Range.*—In western North Atlantic recorded from South Greenland (Brown, Proc. Zool. Soc. London, 1868, pt. 3, p. 549, March 1869), Halifax, Nova Scotia, and Coxipi River, Quebec (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 83, Jan. 24, 1947), Woods Hole, Mass. (USNM 20877), and Jamaica (True, U. S. Nat. Mus. Bull. 36, p. 64, Aug. 8, 1889); in eastern North Pacific from Bering Sea south to near Westport, Wash. (Kenyon and Scheffer, Journ. Mamm., vol. 30, No. 3, p. 267, Aug. 17, 1949), and 10 miles south of mouth of Columbia River, Oreg. (Kellogg and Scheffer, Murrelet, vol. 28, No. 1, pp. 9–10, Apr. 30, 1947).

D. delphis

Genus STENO Gray

1846. *Steno* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 43. (Type, *Delphinus rostratus* Desmarest.)

Steno bredanensis (Lesson)* (rough-toothed porpoise)

1817. *Delphinus rostratus* Desmarest, *in* Nouveau dictionnaire d'histoire naturelle, . . . , vol. 9, p. 160. (Not *Delphinus rostratus* Shaw, General zoology, . . . , vol. 2, pt. 2, p. 560, 1801. See G. Cuvier, Le règne animal, . . . , ed. 2, vol. 1, p. 289, footnote, 1829; and Flower, Proc. Zool. Soc. London, 1883, pt. 4, p. 484, April 1884.)

1823. [*Delphinus*] *frontatus* G. Cuvier, Recherches sur les ossemens fossiles, . . . , ed. 2, vol. 5, pp. 278, 400. (Part; see Flower, Proc. Zool. Soc. London, 1883, pt. 4, pp. 482–483, April 1884.)

1828. *Delphinus bredanensis* Lesson, Histoire naturelle générale et particulière des mammifères et des oiseaux découverts depuis 1788 jusqu'a nos jours, [Half-title:] Complément des oeuvres de Buffon, . . . , Complément 2, vol. 1, Cétacés, p. 206. (Listed as *Delphinorhynchus bredanensis* on page 440 of table méthodique.)

1829. *Delphinus bredanensis* Van Breda, Nieuwe Verh. Eerste Kl. Kon. Nederlandsch Inst., vol. 2, pp. 235–237, pls. 1–2.

1846. *Steno compressus* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 43, pl. 27. (South Sea, Antarctic expedition.)

Type Locality.—European Seas. *Range.*—In western North Atlantic recorded from Tampa, Fla., (USNM 49628), and in eastern North Pacific from Honolulu, Hawaii (Zool. Inst. Univ. Copenhagen), and from Stinson Beach, Marin County, Calif. (Orr, Wasmann Journ. Biol., vol. 9, No. 2, p. 147, 1951).

Genus DELPHINUS Linnaeus

1758. *Delphinus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 77. (Type, *Delphinus delphis* Linnaeus.)

Delphinus delphis Linnaeus* (dolphin)

1758. [*Delphinus*] *delphis* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 77.

1884. *Delphinus delphis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

Type Locality.—European Seas. *Range.*—In western North Atlantic recorded from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 18, 1939) and Woods Hole, Mass. (USNM 20873), south to Bahama Islands and Jamaica (True, U. S. Nat. Mus. Bull. 36, pp. 48, 56, 161, Aug. 8, 1889).

Delphinus bairdii Dall*

1873. *Delphinus bairdii* Dall, Proc. California Acad. Sci., vol. 5, p. 12, January 29, 1873. (For present status see Miller, Proc. Biol. Soc. Washington, vol. 49, pp. 145–146, Aug. 22, 1936.)

Type Locality.—Cape [now Point] Arguello, Santa Barbara County, Calif. *Range.*—In eastern North Pacific recorded from Pacific Beach, Wash. (Scheffer and Slipp, Amer. Midl. Nat., vol. 29, No. 2, p. 269, March 1948), Carmel (USNM 20162) and San Diego, Calif. (USNM 49800), and Escondido Bay, Baja California (USNM 260235).

Genus TURSIOPS[73] Gervais

1843. *Tursio* Gray, List of . . . Mammalia in the . . . British Museum, pp. xxiii, 105, May 13, 1843. (Type, *Delphinus truncatus* Montague. Not *Tursio* Wagler, Natürliches System . . . , p. 30, August 1830, nor *Tursio* Fleming, The philosophy of zoology; . . . , vol. 2, p. 211, 1822.)

1855. *Tursiops* Gervais, Histoire Naturelle des Mammifères . . . , vol. 2, p. 323. (Type, *Delphinus truncatus* Montague. Proposed as a substitute for *Tursio* Gray.)

Tursiops truncatus (Montague)* (bottlenose porpoise)

1821. *Delphinus truncatus* Montague, Mem. Wernerian Nat. Hist. Soc., vol. 3, p. 75.

1884. *Tursiops tursio* and *T. erebennus* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 589, Nov. 29, 1884.

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[73] Reviewed by True, Ann. Durban Mus., vol. 1, pt. 1, pp. 10–24, June 1914.

1903. *Tursiops truncatus* True, Proc. Acad. Nat. Sci. Philadelphia, vol. 55, p. 314, July 8, 1903.

Type Locality.—Totness, Devonshire, England. *Range.*—In western North Atlantic, recorded in coastal waters from Massachusetts south to Florida (True, Ann. Durban Mus., vol. 1, pt. 1, p. 15, June 1914); westward in Gulf of Mexico to Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 256, Nov. 22, 1943) and Aransas Pass, Tex. (Gunter, Journ. Mamm., vol. 23, No. 3, p. 267, Aug. 14, 1942). Recorded also from Barbados, Windward Islands, Lesser Antilles (Turner, The marine mammals in the Anatomical Museum of the University of Edinburgh, p. 135, 1912).

Tursiops gillii Dall†*

1873. *Tursiops gillii* Dall, Proc. California Acad. Sci., vol. 5, p. 13, Jan. 29, 1873.

1884. *Tursiops gillii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

Type Locality.—Monterey, Calif. *Range.*—In eastern North Pacific recorded from Puerto Peñasco, Sonora, México (Mayer, Amer. Midl. Nat., vol. 43, No. 1, pp. 183–185, January 1950), San Bartolomé Bay, west coast of Baja California, and Monterey, Calif. (Andrews, Bull. Amer. Mus. Nat. Hist., vol. 30, pp. 235, 236, Aug. 26, 1911).

Tursiops nuuanu Andrews*

1911. *Tursiops nuuanu* Andrews, Bull. Amer. Mus. Nat. Hist., vol. 30, p. 233, Aug. 26, 1911.

Type Locality.—North Pacific Ocean, approximately lat. 12° N., long. 120° W. *Range.*—Recorded also from Santa Catalina Island, Gulf of California, and 50 miles south of Panamá (Mayer, Amer. Midl. Nat., vol. 43, No. 1, pp. 183–185, January 1950).

Genus LISSODELPHIS Gloger

1841. *Lissodelphis* Gloger, Gemeinnütziges Hand- und Hilfsbuch der Naturgeschichte, vol. 1, p. 169. (Type, *Delphinus peronii* Lacépède. For use of this name in place of *Leucorhamphus* Lilljeborg, Uppsala Univ. Årsskrift, vol. 4, p. 5, 1861, see Palmer, Proc. Biol. Soc. Washington, vol. 13, p. 24, Jan. 31, 1899.)

Lissodelphis borealis (Peale)* (right-whale porpoise)

1848. *Delphinapterus borealis* Peale, Mammalia and ornithology *in* United States exploring expedition, during the years 1838–1842, under the command of Charles Wilkes, U.S.N., Philadelphia, vol. 8, p. 35.

1884. *Leucorhamphus borealis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

1901. [*Lissodelphis*] *borealis* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 30, Mar. 6, 1901.

Type Locality.—North Pacific Ocean, lat. 46° 6′ 50″ N., long. 134° 5′ W., approximately 500 miles off mouth of Columbia River, Oreg. *Range.*—In eastern North Pacific from Bering Sea south to San Diego Bay, Calif. (Scammon, The marine mammals of the north-western coast of North America, . . . , p. 101, 1874). Recorded also from Copalis and Cohasset Beach, Wash. (Scheffer and

Slipp, Amer. Midl. Nat., vol. 39, No. 2, p. 269, March 1948), and 200 miles off Cape Mendocino, Calif. (True, U. S. Nat. Mus. Bull. 36, pp. 81, 169, Aug. 8, 1889).

Genus LAGENORHYNCHUS Gray

1846. *Lagenorhynchus* Gray, Ann. Mag. Nat. Hist., vol. 17, p. 84, February 1846. (Type, *Lagenorhynchus albirostris* Gray.)

Lagenorhynchus albirostris Gray* (white-beaked porpoise)

1846. *Lagenorhynchus albirostris* Gray, Ann. Mag. Nat. Hist., vol. 17, p. 84, February 1846.

1884. *Lagenorhynchus albirostris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

Type Locality.—Great Yarmouth, England. *Range.*—In western North Atlantic recorded from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 19, 1939), Davis Strait and west Greenland (Degerbøl, Medd. om Grønland, vol. 88, No. 3, p. 12, 1936).

Lagenorhynchus acutus (Gray)* (white-sided porpoise)

1828. *Delphinus* (*Grampus*) *acutus* Gray, Spicilegia zoologica, . . . , pt. 1, p. 2.

1846. *Lagenorhynchus acutus* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 36.

1876. *Lagenorhynchus perspicillatus* Cope†, Proc. Acad. Nat. Sci. Philadelphia, vol. 28, p. 136. (Woods Hole or Cape Cod, Mass. See True, *in* Poole and Schantz, U. S. Nat. Mus. Bull. 178, p. 110, Apr. 9, 1942.)

1876. *Lagenorhynchus gubernator* Cope†, Proc. Acad. Nat. Sci. Philadelphia, vol. 28, p. 138. (Casco Bay, near Portland, Maine. See True, *in* Poole and Schantz, U. S. Nat. Mus. Bull. 178, p. 109, Apr. 9, 1942.)

Type Locality.—Unknown. *Range.*—In western North Atlantic recorded from south Greenland (Brown, Proc. Zool. Soc. London, 1868, pt. 3, p. 549, March 1869) south to Cape Cod, Mass. (True, U. S. Nat. Mus. Bull. 36, pp. 87, 169, Aug. 8, 1889).

Lagenorhynchus obliquidens Gill†*

1865. *Lagenorhynchus obliquidens* Gill, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 177.

1884. *Lagenorhynchus obliquidens* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

Type Locality.—Pacific Ocean, near San Francisco, Calif. *Range.*—In eastern North Pacific from Valdez (Swan Point) and Montague Strait, Prince William Sound, Alaska, southward off coasts of Washington, Oregon, and California to Ballenas Bay, Baja California (Scheffer, Amer. Midl. Nat., vol. 44, No. 3, p. 750, November 1950).

Lagenorhynchus thicolea Gray

1849. *Lagenorhynchus thicolea* Gray, Proc. Zool. Soc. London, 1849, pt. 17, p. 2, Dec. 11, 1849.

1884. *Lagenorhynchus thicolea* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

Type Locality.—Stated to be western coast of North America.

Genus GRAMPUS Gray

1828. *Grampus* Gray, Spicilegia zoologica, . . . , pt. 1, p. 2. (Type by tautonomy, and subsequent designation, Gray, Zool. Journ., vol. 4, p. 497, 1829, *Delphinus grampus* "Linn." [= Hunter, 1787] = *Delphinus orca* Linnaeus. For use of *Grampus* in place of *Orcinus* see Iredale and Troughton, Rec. Australian Mus., vol. 19, No. 1, pp. 28–36, Aug. 2, 1933. See also, Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 739, Nov. 19, 1951.)

1846. *Orca* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 17, p. 84, February 1846. (Type by tautonomy, *Delphinus orca* Linnaeus. Not *Orca* Wagler, 1830.)

1860. *Orcinus* Fitzinger, Wissenschaftlich-populäre Naturgeschichte der Säugethiere, vol. 6, p. 204. (Type, *Delphinus orca* Linnaeus.)

Grampus orca (Linnaeus) * (Atlantic killer whale)

1758. [*Delphinus*] *orca* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 77.

1860. *Orcinus orca* Fitzinger, Wissenschaftlich-populäre Naturgeschichte der Säugethiere . . . , vol. 6, p. 204.

1884. *Orca gladiator* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

1933. *Grampus orca* Iredale and Troughton, Rec. Australian Mus., vol. 19, No. 1, p. 35, Aug. 2, 1933.

Type Locality.—European Seas. *Range.*—In western North Atlantic recorded from coast of Greenland (Brown, Proc. Zool. Soc. London, 1868, pt. 3, p. 549, March 1869), Eclipse Sound north of Baffin Island, Davis Strait, and Baffin Bay (Freuchen, *in* Degerbøl and Freuchen, Mammals, *in* Rep. Fifth Thule Exped. 1921–24, Danish Exped. to Arctic North America, vol. 2, Nos. 4–5, pt. 2, pp. 262–266, 1935) south to New Jersey (Ulmer, Not. Naturae, Acad. Nat. Sci. Philadelphia, No. 83, p. 1, Aug. 11, 1941).

Grampus rectipinna (Cope) * (Pacific killer whale)

1869. *Orca rectipinna* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 22.

1869. *Orca ater* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 22 (Northwest coasts from Oregon to Aleutian Islands.)

1875. *Orca pacifica* Gray, Proc. Zool. Soc. London, 1875, pt. 1, p. 76, June 2, 1875. (North Pacific.)

1898. [*Orca*] *rectispina* Trouessart, Catalogus Mammalium . . . , fasc. 5, p. 1050. (Accidental renaming of *rectipinna.*)

1942. *Grampus rectipinna* Scheffer, Murrelet, vol. 23, No. 2, p. 44, Aug. 14, 1942.

Type Locality.—Coast of California. *Range.*—In eastern North Pacific recorded from St. Matthew Islands (Hanna, Journ. Mamm., vol. 1, No. 3, p. 120, June 19, 1920) and Pribilof Islands, Bering Sea (Preble, North Amer. Fauna No. 46, p. 117, June 27, 1923), Queen Charlotte Islands and Vancouver Island (Carl, Rep. Prov. Mus. Nat. Hist., British Columbia, 1945, pp. B21–B28, 1946), off coast of Washington (Scheffer and Slipp, Amer. Midl. Nat., vol. 39, No. 2, pp. 274–287, March 1948) south to coast of California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 215, Sept. 26, 1933) and Baja California (Scammon, The marine mammals of the north-western coast of North America . . . , p. 90, 1874).

Genus GRAMPIDELPHIS Iredale and Troughton

1846. *Grampus* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 17, p. 85, February 1846. (Not *Grampus* Gray, 1828.)

1873. *Grayius* Scott, Mammalia, Recent and extinct; . . . , p. 104. (New name for *Grampus* Gray, 1846, and later, and not of Gray, 1828. Preoccupied by *Grayius* Bonaparte 1856, Günther 1858, and Bate 1862.)

1933. *Grampidelphis* Iredale and Troughton, Rec. Australian Mus., vol. 19, No. 1, p. 31, Aug. 2, 1933. (Type, *Grampidelphis exilis* Iredale and Troughton.)

Grampidelphis griseus (G. Cuvier)* (grampus)

1812. *Delphinus griseus* G. Cuvier, Ann. Mus. Hist. Nat., Paris, vol. 19, p. 14.

1872. *Grampus griseus* Flower, Trans. Zool. Soc. London, vol. 8, pt. 1, p. 1, March 1872.

1873. *Grampus stearnsii* Dall†, Proc. California Acad. Sci., vol. 5, p. 13, January 1873. (Monterey, Calif.)

1933. *G[rampidelphis] griseus* Iredale and Troughton, Rec. Australian Mus., vol. 19, No. 1, p. 32, Aug. 2, 1933.

Type Locality.—Brest, France. *Range.*—In western North Atlantic recorded from Cape Cod, Mass., and Atlantic City, N. J. (True, U. S. Nat. Mus. Bull. 36, p. 183, Aug. 8, 1889); and in eastern North Pacific from Monterey, Calif.

Genus PSEUDORCA Reinhardt

1862. *Pseudorca* Reinhardt, Overs. Danske Vid. Selsk. Forh., 1862, p. 151. (Type, *Phocaena crassidens* Owen.)

Pseudorca crassidens (Owen)* (false killer whale)

1846. *Phocaena crassidens* Owen, A history of British fossil mammals and birds, p. 516.

1862. *Pseudorca crassidens* Reinhardt (on title page to reprint of article from Overs. Danske Vid. Selsk. Forh., 1862, pp. 103–152).

Type Locality.—Lincolnshire Fens, England (subfossil). *Range.*—In western North Atlantic recorded from Hatteras Village, coast of North Carolina, Biscayne Bay and near Deerfield, Fla. (Brimley, Journ. Mamm., vol. 18, No. 1, p. 73, Feb. 11, 1937); Princeton, Fla., and Aves Islands in Caribbean Sea 70 miles off coast of Venezuela (Miller, Proc. U. S. Nat. Mus., vol. 57, pp. 205–207, June 15, 1920); in eastern North Pacific from Puget Sound, Wash. (Scheffer and Slipp, Amer. Midl. Nat., vol. 29, No. 2, pp. 287–289, March 1948), Pichilinque Bay near La Paz, Baja California (Miller, op. cit., p. 206), and Acapulco, Guerrero, México (Brimley, loc. cit.).

Genus GLOBICEPHALA Lesson

1828. *Globicephala* Lesson, Histoire naturelle générale et particulière des mammifères et des oiseaux découverts depuis 1788 jusqu'a nos jours, [Half-title:] Complément des oeuvres de Buffon, . . . , Complément 2, vol. 1, Cétacés, Table méthodique, p. 441. (Type, *Delphinus destructor* Scoresby.)

1837. *Globicephalus* Hamilton, *in* The Naturalist's library (Edit. Jardine), vol. 16 (Mammalia, vol. 6, Whales), p. 212. (Type by tautonomy, *Delphinus globiceps* G. Cuvier.)

Globicephala melaena (Traill)* (blackfish or pilot whale)

1809. *Delphinus melas* Traill, Journ. Nat. Philos. Chem. Arts, vol. 22, p. 81, pl. 3, February 1809.

1812. *Delphinus globiceps* G. Cuvier, Ann. Mus. Hist. Nat., Paris, vol. 19, p. 14, pl. 1, August 1812. (Sainte Brieux, France.)

1898. *Globicephala melaena* Thomas, The Zoologist, ser. 4, vol. 2, p. 99, March 1898.

1933. *Globicephalus ventricosus* Iredale and Troughton, Rec. Australian Mus., vol. 19, No. 1, p. 35, Aug. 2, 1933. (Not of Lacépède, since *Delphinus ventricosus* Lacépède, Histoire Naturelle des Cétacées, . . . , pp. XLIII, 311, pl. 15, fig. 3, 1804, was based on the small grampus of Hunter, Phil. Trans. Roy. Soc. London, vol. 77, pl. 17, 1787. Hunter's illustration was redrawn and the porpoise described under the name "l'épaulard ventru" by Bonnaterre, Tableau encyclopédique et méthodique des trois règnes de la nature, Cetologie, *in* Encyclopédie Méthodique, Paris, vol. 127, pl. 12, fig. 2, 1789. Palmer, *in* Hunter, The works of John Hunter . . . edited [with notes] by J. F. Palmer, plates, p. 22, explanation for pl. 45, 1837, correctly states that Hunter's illustration is an exact representation of the common porpoise, *Phocoena phocoena.* See Fraser, Ann. Mag. Nat. Hist., ser. 12, vol. 4, No. 45, pp. 942–944, September 1951.)

Type Locality.—Scapay Bay, Pomona, Orkney Islands, Scotland. *Range.*—In western North Atlantic recorded from off Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 21, 1939), coasts of Greenland (Brown, Proc. Zool. Soc. London, 1868, pt. 3, pp. 554–556, March 1869), vicinity of Trois Pistoles, Quebec (Prefontaine, Ann. Rep. Provancher Soc. Nat. Hist., Quebec (French edition), 1930, p. 50, 1931), Gulf of St. Lawrence (Matthewson, Journ. Mamm., vol. 16, No. 3, p. 234, Aug. 12, 1935), coast of Prince Edward Island (Needler, Canadian Field-Nat., vol. 45, No. 7, pp. 157–158, Oct. 1, 1937), Cape Cod, Mass., south to Long Island, N. Y. (True, U. S. Nat. Mus. Bull. 36, p. 133, Aug. 8, 1889), and Virginia (Handley and Patton, Wild mammals of Virginia, p. 204, 1947).

Globicephala macrorhyncha Gray*

1846. *Globicephalus macrorhynchus* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 3, p. 33.

1876. *Globicephalus brachypterus* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 28, p. 129. (East coast of Delaware Bay, at mouth of Maurice River. Regarded as identical with *macrorhyncha* by Fraser, Atlantide Report No. 1 (Scientific results of the Danish expedition to the coasts of tropical West Africa 1945–46), pp. 50, 52, 58, 59, 1950.)

1884. *Globicephalus brachypterus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 589, Nov. 29, 1884.

1950. *Globicephala macrorhyncha* Fraser, Atlantide Report No. 1 (Scientific results of the Danish expedition to the coasts of tropical West Africa 1945–1946), p. 59.

Type Locality.—South Seas. *Range.*—In western North Atlantic from New Jersey south to Gulf of Mexico and West Indies (True, U. S. Nat. Mus. Bull. 36, p. 139, Aug. 9, 1889). Recorded also from Dam Neck Mills, Va., and Osprey

(True, 1889, p. 139), Pavilion Key (USNM 37264), Dry Tortugas, Beach Bush Key (USNM 257414), and Pensacola, Fla. (USNM 241182). Stranded pilot whales have been recorded near mouth of Bayou Lafourche, La. (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 257, Nov. 22, 1943), and on coast of Texas as far west as Aransas Pass (Gunter, Journ. Mamm., vol. 27, No. 4, p. 377, Nov. 25, 1946).

Globicephala scammonii Cope†*

1869. *Globiocephalus scammonii* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 21.

1884. *Globiocephalus scammoni* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 589, Nov. 29, 1884.

Type Locality.—Ten miles off Pacific coast of Baja California, México, in lat. 31° N. *Range.*—In eastern North Pacific recorded from Kanatak on western shore of Alaska Peninsula (Orr, Wasmann Journ. Biol., vol. 9, No. 2, p. 147, 1951), Hecate Strait, Queen Charlotte Islands (Osgood, North Amer. Fauna No. 21, p. 25, Sept. 26, 1901), near Santa Catalina Islands, Calif. (Nidevar, California Fish and Game, vol. 7, No. 1, p. 64, January 1921), Cape San Lucas, Baja California, and Gulf of California (Scammon, The marine mammals of the northwestern coast of North America, p. 87, 1874), and Gulf of Dulce on coast of Guatemala (Scammon, loc. cit.).

Genus PHOCOENA G. Cuvier

1816. *Phocoena* G. Cuvier, Le règne animal, . . ., vol. 1, p. 279, December 1816. (Type, *Delphinus phocoena* Linnaeus. For date of publication, see Sherborn, Index animalium, sect. 2 (1801–1850), pt. 1, p. XLI, 1922.)

Phocoena phocoena (Linnaeus)* (harbor porpoise)

1758. [*Delphinus*] *phocoena* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 77.

1884. *Phocaena communis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 590, Nov. 29, 1884.

1947. *Phocoena phocoena* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 85, Jan. 24, 1947.

Type Locality.—Swedish Seas (see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 158, Mar. 22, 1911). *Range.*—In western North Atlantic recorded from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 20, 1939), Davis Strait (Brown, Proc. Zool. Soc. London, 1868, pt. 3, pp. 550–551, March 1869), southern waters of Cumberland Sound (Soper, Journ. Mamm., vol. 25, No. 3, p. 251, Nov. 8, 1944), St. Lawrence River, Nova Scotia, on Bay of Fundy (Leighton, Nat. Hist., vol. 40, No. 1, pp. 410–416, 458, June 1937), near Mount Desert Island, Maine (Manville, Journ. Mamm., vol. 23, No. 4, p. 397, Jan. 4, 1943), off Portsmouth Harbor, N. H. (Jackson, Journ. Mamm., vol. 3, No. 1, p. 14, Feb. 8, 1922), and south at least to Delaware River (Fowler, Science, new ser., vol. 42, p. 220, Aug. 13, 1915).

Phocoena vomerina Gill†*

1865. *Phocaena vomerina* Gill, Proc. Acad, Nat. Sci. Philadelphia, vol. 17, p. 178.

1942. *Phocoena vomerina* Scheffer, Murrelet, vol. 23, No. 2, p. 45, Aug. 14, 1942.

Type Locality.—Puget Sound, Wash. *Range.*—In eastern North Pacific recorded from Pribilof Islands, Bering Sea (Preble, North Amer. Fauna No. 46, pp. 118–119, June 27, 1923), Unalaska (Bailey and Hendee, Journ. Mamm., vol. 7, No. 1, p. 28, Feb. 15, 1926), Kanatak, on Shelikof Strait, Alaska Peninsula (Osgood, North Amer. Fauna No. 24, p. 27, Nov. 23, 1904), Wrangell Narrows and Graham Reach, Alaska (Scheffer, Journ. Mamm., vol. 30, No. 2, p. 116, May 23, 1949), Hecate Strait, Queen Charlotte Islands (Osgood, North Amer. Fauna No. 21, p. 25, Sept. 26, 1901), off Vancouver Island (Cowan, Journ. Mamm., vol. 25, No. 3, p. 295, Nov. 8, 1944), Puget Sound, Wash. (Scheffer and Slipp, Amer. Midl. Nat., vol. 39, No. 2, pp. 289–301, March 1948), Rockaway Beach, San Mateo County, Calif. (Orr, Journ. Mamm., vol. 18, No. 3, p. 370, Aug. 14, 1937), and as far south as Tres Marias Islands (Nelson, North Amer. Fauna No. 14, p. 19, Apr. 20, 1899) and Banderas Bay, Jalisco, México (Scammon, The marine mammals of the northwestern coast of North America, p. 95, 1874). Recorded recently at Elson Lagoon, Point Barrow, Alaska (USNM 294800).

Genus PHOCOENOIDES Andrews

1911. *Phocoenoides* Andrews, Bull. Amer. Mus. Nat. Hist., vol. 30, p. 31, May 16, 1911. (Type, *Phocoenoides truei* Andrews.)

Phocoenoides dalli (True)†* (Dall's porpoise)

1885. *Phocaena dalli* True, Proc. U. S. Nat. Mus., vol. 8, p. 95, June 19, 1885.

1911. *P[hocoenoides] dalli* Andrews, Bull. Amer. Mus. Nat. Hist., vol. 30, p. 34, May 16, 1911.

Type Locality.—Strait west of Adakh [=Adak], Aleutian Islands, Alaska. *Range.*—In eastern North Pacific recorded from western Aleutian Islands, Hoonyah [=Hooniah] Sound, Alaska (True, U. S. Nat. Mus. Bull. 36, p. 125, Aug. 8, 1889), Sullivan Island, Lynn Canal, and Wrangell, Alaska (Miller, Proc. U. S. Nat. Mus., vol. 74, p. 1, Jan. 26, 1929), Queen Charlotte Sound and channels north of Vancouver Island (Cowan, Journ. Mamm., vol. 25, No. 3, p. 295, Nov. 8, 1944), 30 miles off Yaquina Head, Oreg. (Scheffer, Journ. Mamm., vol. 23, No. 2, p. 221, May 14, 1942), San Francisco Bay and Santa Barbara Channel between Santa Cruz Island and Santa Barbara, Calif. (Benson and Groody, Journ. Mamm., vol. 23, No. 1, pp. 41–42, Feb. 14, 1942).

Suborder MYSTICETI (baleen whales)

Family ESCHRICHTIDAE

Genus ESCHRICHTIUS Gray

1864. *Eschrichtius* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 14, p. 350, November 1864. (Type, *Balaenoptera robusta* Lilljeborg (Subfossil. See Palmer, North Amer. Fauna No. 23, p. 271, Jan. 23, 1904. Regarded as identical with *Rhachianectes* by Van Deinse and Junge, Temminckia, vol. 2, pp. 178–181, 1937.)

1869. *Rhachianectes* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 15. (Type, *Agaphelus glaucus* Cope.)

Eschrichtius glaucus (Cope)* (gray whale)

?1777. *Balaena gibbosa* Erxleben, Systema regni animalis . . . , p. 610. (Based on "scrag whale" of Dudley, Phil. Trans. Roy. Soc. London, vol. 33, p. 258, 1725. Coast of New England.)

1868. *Agaphelus glaucus* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 20, p. 160. (Monterey Bay, Calif.)

1869. *Rhachianectes glaucus* Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 15.

1937. *Eschrichtius gibbosus* Van Deinse and Junge, Temminckia, vol. 2, p. 181.

1952. *Eschrichtius glaucus* Schevill, Breviora, Mus. Comp. Zool., No. 7, p. 3, Sept. 29, 1952. (Specific identity of *gibbosus* with *glaucus* regarded as not demonstrated.)

Type locality.—Monterey Bay, Calif. *Range.*—In eastern North Pacific from Bering Strait and Bering Sea south to lagoons of Baja California and to about latitude of Jalisco, México (Kellogg, Ann. Rep. Smithsonian Inst., 1928, pp. 482–483, Nov. 19, 1929).

Family BALAENOPTERIDAE

Subfamily BALAENOPTERINAE (finback whales)

Genus BALAENOPTERA[74] Lacépède

1804. *Balaenoptera* Lacépède, Histoire naturelle des cetacées, . . . , p. xxxvi. (Type, by subsequent selection, Flower, Proc. Zool. Soc. London, 1864, pt. 3, p. 395, May 1865, *Balaena rostrata* Fabricius = *Balaenoptera acutorostrata* Lacépède.)

Balaenoptera physalus (Linnaeus)* (common finback whale)

1758. [*Balaena*] *physalus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 75.

1862. *Balaenoptera physalus* Schlegel, De Dieren van Nederland, . . . , Zoogdieren, p. 101.

1884. *Physalus antiquorum, Sibbaldius tuberosus, S. tectirostris,* and *S. veliferus* True, Proc. U. S. Nat. Mus., vol. 7 (App. Circ. 29), p. 591, Nov. 29, 1884.

1901. [*Balaenoptera velifera*] *copei* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 13, Mar. 6, 1901. (Shumagin Islands, Alaska.)

Type Locality.—Spitzbergen Seas (See Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 156, Mar. 22, 1911). *Range.*—In western North Atlantic from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 29, 1939) and Baffin Bay as far north as Melville Island on west coast of Greenland (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 92, Jan. 24, 1947) south to Gulf of Mexico (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, pp. 254–256, Nov. 22, 1943) and Caribbean Sea; in western North Pacific from Bering Sea (Preble, North Amer. Fauna No. 46, p. 116, June 27, 1923) south at least to waters off Baja California (Scammon, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, No. 1, p. 53, April 1869).

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[74] Revised by True, Smithsonian Contrib. Knowl., vol. 33, pp. 107–210, Aug. 29, 1904.

Balaenoptera borealis Lesson* (Sei or Pollack whale)

1828. *Balaenoptera borealis* Lesson, Histoire naturelle générale et particulière des mammifères et des oiseaux découverts depuis 1788 jusqu'a nos jours, [Half-title:] Complément des oeuvres de Buffon, . . . , Complément 2, vol. 1, Cétacés, p. 342.

1884. *Sibbaldius laticeps* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 591, Nov. 29, 1884.

1898. *Balaenoptera borealis* True, Proc. U. S. Nat. Mus., vol. 21, p. 635, Nov. 4, 1898.

Type Locality.—Gromitz, Lübeck Bay, Schleswig-Holstein, Germany. *Range.*—In western North Atlantic from waters off Iceland (Saemundsson, Mammalia, Zoology of Iceland, vol. 4, pt. 76, p. 28, 1939) and Labrador south to Florida (Miller, Proc. U. S. Nat. Mus., vol. 66, pp. 1–15, Dec. 11, 1924) and Gulf of Campeche (Miller, Proc. Biol. Soc. Washington, vol. 41, p. 171, Oct. 15, 1928); and in western North Pacific from Bering Sea south at least to waters off Baja California.

Balaenoptera acutorostrata Lacépède* (little piked or Minke whale)

1804. *Balaenoptera acuto-rostrata* Lacépède, Histoire naturelle des Cétacées, . . . , p. xxxvii.

1872. *Balaenoptera davidsoni* Scammon†, Proc. California Acad. Sci., vol. 4, p. 269, Oct. 4, 1872. (Admiralty Inlet, Puget Sound, Wash.)

1884. *Agaphelus gibbosus*, *Balaenoptera rostratus*, and *B. davidsoni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), pp. 590, 591, Nov. 29, 1884.

1898. *Balaenoptera acuto-rostrata* Thomas, The Zoologist, ser. 4, vol. 2, p. 99, March 1898.

Type Locality.—European Seas. *Range.*—In western North Atlantic from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 27, 1939), Baffin Bay and off south Greenland coast south at least to New Jersey (G. M. Allen, Mem. Boston Soc. Nat. Hist., vol. 8, No. 2, pp. 274–275, September 1916); and in western North Pacific from Bering Sea (Preble, North Amer. Fauna No. 46, p. 116, June 27, 1923) south at least to waters off Baja California (see also Scattergood, Murrelet, vol. 30, No. 1, pp. 1–16, January–April 1949).

Genus SIBBALDUS Gray

1864. *Sibbaldus* Gray, Proc. Zool. Soc. London, 1864, pt. 2, p. 222, November 1864. (Type, by tautonomy, *Sibbaldus borealis* Gray = *Physalus sibbaldii* Gray = *Balaena musculus* Linnaeus.)

Sibbaldus musculus (Linnaeus)* (blue or sulphur-bottom whale)

1758. [*Balaena*] *musculus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 76.

1884. *Physalus sibbaldii* and *Sibbaldius sulfureus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 591, Nov. 29, 1884.

1898. *Balaenoptera musculus* True, Proc. U. S. Nat. Mus., vol. 21, p. 633, Nov. 4, 1898.

1923. *Sibbaldus musculus* Miller, Smithsonian Misc. Coll., vol. 76, No. 5, p. 20, Aug. 31, 1923.

Type Locality.—Firth of Forth, Scotland (see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 156, Mar. 22, 1911). *Range.*—In western North Atlantic from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 30, 1939, coasts of southern Greenland, Davis Strait, and probably Baffin Bay (G. M. Allen, Mem. Boston Soc. Nat. Hist., vol. 8, No. 2, p. 255, September 1916) south to Cristóbal Harbor, Canal Zone, Panamá (Harmer, Proc. Zool. Soc. London, 1923, pt. 4, p. 1085, Dec. 27, 1923); and in eastern North Pacific from St. Matthew Islands, Bering Sea (Hanna, Journ. Mamm., vol. 1, No. 3, p. 120, June 19, 1920), south at least to waters off Nicaragua (Kellogg, Ann. Rep. Smithsonian Inst., 1928, p. 487, Nov. 18, 1929).

Subfamily MEGAPTERINAE (humpback whale)

Genus MEGAPTERA Gray

1846. *Megaptera* Gray, Ann. Mag. Nat. Hist., ser. 1, vol. 17, p. 83, February 1846. (Type, *Megaptera longipinna* Gray=*Balaena longimana* Rudolphi=*Balaena novae angliae* Borowski.)

Megaptera novaeangliae (Borowski)* (humpback whale)

1781. *Balaena novae angliae* Borowski, Gemeinnüzzige Naturgeschichte des Thierreichs, . . . , vol. 2, pt. 1, p. 21.

1789. [*Balaena*] *nodosa* Bonnaterre, Tableau encyclopédique et méthodique des trois régnes de la nature, Cétologie, p. 5. (Coast of New England.)

1884. *Megaptera longimana, M. bellicosa,* and *M. versabilis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 591, Nov. 29, 1884.

1932. *Megaptera novaeangliae* Kellogg, Proc. Biol. Soc. Washington, vol. 45, p. 148, Sept. 9, 1932.

Type Locality.—Coast of New England. *Range.*—In western North Atlantic from north of Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76, p. 31, 1939) and Disco Bay, west Greenland (Brown, Proc. Zool. Soc. London, 1868, pt. 3, p. 548, March 1869), south to Bermuda, Lesser Antilles, and vicinity of Trinidad Island (Kellogg, Ann. Rep. Smithsonian Inst., 1928, p. 474, Nov. 18, 1929); and in eastern North Pacific from Pribilof Islands, Bering Sea (Preble, North Amer. Fauna No. 46, p. 116, June 27, 1923), south to Revillagigedo Islands and Golfo de Panamá (Townsend, Zoologica, New York Zool. Soc., vol. 19, No. 1, pl. 4, Apr. 3, 1935).

Family BALAENIDAE

Genus EUBALAENA Gray

1864. *Eubalaena* Gray, Proc. Zool. Soc. London, 1864, pt. 2, p. 201, November 1864. (Type, *Balaena australis* Desmoulins.)

Eubalaena glacialis (Borowski)* (right whale)

1781. *Balaena glacialis* Borowski, Gemeinnüzzige Naturgeschichte des Thierreichs, . . . , vol. 2, pt. 1, p. 18. (See Kellogg, Proc. Biol. Soc. Washington, vol. 45, p. 147, Sept. 9, 1932.)

1884. *Balaena biscayensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 591, Nov. 29, 1884.

1900. *Eubalaena glacialis* Kükenthal, Fauna Arct., vol. 1, p. 207.

Type Locality.—North Cape, Norway. *Range.*—In western North Atlantic from Iceland (Saemundsson, Mammalia, *in* Zoology of Iceland, vol. 4, pt. 76,

p. 31, 1939) south to Gulf of St. Lawrence near Newfoundland and along coast of New England; probably wintered regularly as far south as coasts of South Carolina and Bermuda Islands (True, Smithsonian Contr. Knowl., vol. 33, pp. 244–268, Aug. 29, 1904).

Eubalaena sieboldii (Gray)

1864. *Balaena sieboldii* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 14, p. 349, November 1864.

1866. *Eubalaena sieboldii* Gray, Catalogue of the seals and whales in the British Museum, p. 96.

Type Locality.—Coast of Japan and northwest coast of North America. *Range.*—In eastern North Pacific from Cape Prince of Wales, Alaska (Townsend, Zoologica, New York Zool. Soc., vol. 19, No. 1, pl. 3, Apr. 3, 1935), south through Aleutian chain and Queen Charlotte Strait to coast of Oregon, and occasionally along coasts of California (Starks, California Fish and Game Comm. Fish Bull. 6, p. 35, 1922) and Baja California (Scammon, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, No. 1, p. 38, April 1869).

Genus BALAENA Linnaeus

1758. *Balaena* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 75. (Type, *Balaena mysticetus* Linnaeus.)

Balaena mysticetus Linnaeus* (bowhead whale)

1758. [*Balaena*] *mysticetus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 75.

1884. *Balaena mysticetus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 591, Nov. 29, 1884.

Type Locality.—Greenland Seas. *Range.*—In western North Atlantic formerly from Iceland, Wolstenholme Sound in northern Baffin Bay, and waters bordering Canadian Arctic Archipelago (Kellogg, Ann. Rep. Smithsonian Inst., 1928, pp. 478–482, Nov. 18, 1929) south to Strait of Belle Isle and St. Lawrence River (True, Smithsonian Contr. Knowl., vol. 33, pp. 12, 43, Aug. 29, 1904); in Arctic Ocean from Amundsen Gulf off Baring Island westward along Arctic coast of Canada and Alaska to Wrangell Island (Townsend, Zoologica, New York Zool. Soc., vol. 19, No. 1, pl. 4, Apr. 3, 1935); and in western Bering Sea south at least to Pribilof Islands (Preble, North Amer. Fauna No. 46, p. 115, June 27, 1923; see also Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 90, Jan. 24, 1947).

Order CARNIVORA

Suborder FISSIPEDIA

Superfamily CANOIDEA

Family CANIDAE

Subfamily CANINAE

Genus CANIS Linnaeus

1758. *Canis* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 38. (Type, *Canis familiaris* Linnaeus.)

Subgenus **THOS**[75] **Oken (jackals and coyotes)**

1816. *Thos* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sect. 2, p. 1037. (Type, *Thos vulgaris* Oken = *Canis aureus* Linnaeus. For use of *Thos* in place of *Lyciscus* Hamilton-Smith, see Heller, Smithsonian Misc. Coll., vol. 63, No. 7, p. 1, June 24, 1914. For status of *Thos*, see Pocock, *in* The fauna of British India, . . . , Mammalia, vol. 2, p. 94, footnote, Sept. 15, 1941. Names published by Oken in 1816 regarded by Hershkovitz, Journ. Mamm., vol. 30, No. 3, p. 293, Aug. 17, 1949, as non-Linnaean and not available.)

1837. *Vulpicanis* Blainville, Ann. Sci. Nat., Paris, ser. 2 (Zool.), vol. 8, p. 279, November 1937. (Type, *Canis aureus* Linnaeus.)

1839. *Lyciscus* Hamilton-Smith, *in* The naturalist's library (Edit. Jardine), vol. 25 (Mammalia, vol. 9, Dogs, vol. 1), p. 160. (Type, *Canis latrans* Say.)

Canis latrans latrans Say*

1823. *Canis latrans* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 1, p. 168.

1884. *Canis latrans* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1897. *Canis pallidus* Merriam†, Proc. Biol. Soc. Washington, vol. 11, p. 24, Mar. 15, 1897. (Not of Rüppell, 1826. Johnstown, Brown County, Nebr.)

1898. *Canis nebracensis* Merriam, Science, new ser., vol. 8, p. 782, Dec. 2, 1898. (Substitute for *pallidus* Merriam.)

1920. *Canis latrans latrans* Jackson, Journ. Mamm., vol. 1, No. 2, p. 62, Mar. 2, 1920.

Type Locality.—Engineer Cantonment, about 12 miles southeast of present town of Blair, Washington County, Nebr. (Not Council Bluffs, Pottawattamie County, Iowa.) *Range.*—Southeastern Alberta and southern Saskatchewan, Montana, Wyoming, and Colorado east of Rocky Mountains, and northeastern corner of New Mexico; extreme southwestern corner of Manitoba, North Dakota except northeastern quarter; South Dakota, Nebraska; Kansas, except southeastern quarter; northwestern Oklahoma, and northern Panhandle region of Texas (Jackson, *in* Young and Jackson, The clever coyote, p. 257, Nov. 29, 1951).

Canis latrans frustror Woodhouse†*

1851. *Canis frustror* Woodhouse, Proc. Acad. Nat. Sci. Philadelphia, vol. 5, p. 147, June 30, 1851.

1937. *Canis frustrator* [sic] Black, Kansas State Board of Agr., Thirtieth Biennial Rep., 1935–1936, p. 169, 1937.

1951. *Canis latrans frustror* Jackson, *in* Young and Jackson, The clever coyote, p. 271, Nov. 2, 1951.

Type Locality.—Red Fork of Arkansas River (now Cimarron River), about 100 miles west of Fort Gibson, and probably near long. 97° W. near present town of Perkins, Payne County, Okla. *Range.*—Southeastern and extreme eastern Kansas; Oklahoma mostly east of long. 99° W.; Texas east of long. 99° W. north of lat. 30° N. and east of Nueces Bay, long. 97° W., south of lat. 30° N.;

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[75] American forms revised by Jackson, *in* Young and Jackson, The clever coyote, pt. 2, pp. 229–341, Nov. 29, 1951.

Missouri, south of Missouri River and west of long. 91° W.; extreme northwestern and western Arkansas (Jackson, loc. cit.).

Canis latrans thamnos Jackson†*

1949. *Canis latrans thamnos* Jackson, Proc. Biol. Soc. Washington, vol. 62, p. 31, Mar. 17, 1949.

Type Locality.—Basswood Island, Apostle Islands, Ashland County, Wis. *Range.*—East-central Saskatchewan south of lat. 54° N., and north of lat. 51° N.; Manitoba except extreme southwestern corner; extreme eastern North Dakota, Minnesota, Iowa, northern Missouri (north of Missouri River); easterly through western Ontario, Michigan, Wisconsin, northern and central Illinois, northern Indiana, southern and eastern Ontario, to extreme southern Quebec (near Luskville, Eardley Township), Canada (Jackson, *in* Young and Jackson, The clever coyote, pp. 266–267, Nov. 29, 1951).

Canis latrans incolatus Hall*

1934. *Canis latrans incolatus* Hall, Univ. California Publ. Zool., vol. 40, No. 9, p. 369, Nov. 5, 1934.

Type Locality.—Isaac Lake, Bowron Lake region, British Columbia, Canada. Altitude, 3,000 feet. *Range.*—Northern Alaska from north of Arctic Circle (Kotzebue; Point Barrow) south to lat. 61° N. (Eagle River); Yukon, except extreme northern part; western Mackenzie (Mackenzie River region); northern and central British Columbia, south to lat. 51° N. on the west and lat. 52° N. in eastern British Columbia; northern and central Alberta, south to lat. 52° N. in western Alberta and to lat. 55° N. in eastern Alberta (Jackson, *in* Young and Jackson, The clever coyote, p. 263, Nov. 29, 1951).

Canis latrans lestes Merriam†*

1897. *Canis lestes* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 25, Mar. 15, 1897.

1913. *Canis latrans lestes* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 285, Aug. 28, 1913.

Type Locality.—Toyabe Mountains, near Cloverdale, Nye County, Nev. *Range.*—Southern British Columbia south of about lat. 52° N., except coast region; southwestern Alberta; Washington and Oregon east of Cascade Mountains; Idaho, western Montana, western Wyoming; northern California north of about lat. 40° N., except coast region to about lat. 41° N.; eastern California in Sierra Nevada south to about lat. 36° N.; Nevada and Utah north of about lat. 37°30′ N., except in eastern Utah where it extends south to about lat. 38°30′ N.; mountainous regions of western Colorado, except extreme southwest corner south of lat. 38°30′ N. and west of about long. 107° W.; mountain region of northern New Mexico between long. 105° and 107° W., and north of about lat. 35°30′ N. (Jackson, *in* Young and Jackson, The clever coyote, pp. 279–280, Nov. 29, 1951).

Canis latrans umpquensis Jackson†*

1949. *Canis latrans umpquensis* Jackson, Proc. Biol. Soc. Washington, vol. 62, p. 31, Mar. 17, 1949.

Type Locality.—Five miles southeast of Drew, Douglas County, Oreg. *Range.*—West of Cascade Mountains in Oregon and Washington.

Canis latrans ochropus Eschscholtz*

1829. *Canis ochropus* Eschscholtz, Zoologischer Atlas, . . . , vol. 3, p. 1.

1897. *Canis ochropus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 32, Mar. 15, 1897.

1932. *Canis latrans ochropus* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—West-central California, most probably on Sacramento River not far south of Sacramento; specimens from Tracy, San Joaquin County, assumed to be typical. *Range.*—California west of high Sierra Nevada and south of about lat. 40° N. except in coast region where its range extends north to lat. 41° N.; south through central California to about lat. 34° N. and in western coast region nearly to lat. 33° N. (Jackson, *in* Young and Jackson, The clever coyote, p. 290, Nov. 29, 1951).

Canis latrans clepticus Elliot*

1903. *Canis clepticus* Elliot, Field Columb. Mus. Publ. 79, Zool. Ser., vol. 3, No. 12 (June), p. 225, Aug. 15, 1903.

1932. *Canis latrans clepticus* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Vallecitos, Sierra San Pedro Mártir, Baja California, México. Altitude, 8,500 feet. *Range.*—Northern Baja California north of lat. 30° N. except northeastern part north of lat. 31°31′ N. and east of long. 116° W.; southwestern California, mostly confined to San Diego County (Jackson, *in* Young and Jackson, The clever coyote, p. 293, Nov. 29, 1951).

Canis latrans peninsulae Merriam†*

1897. *Canis peninsulae* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 28, Mar. 15, 1897.

1932. *Canis latrans peninsulae* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Santa Anita, near San José del Cabo, Cape San Lucas, Baja California, México. *Range.*—Peninsula of Baja California south of lat. 30° N. (Jackson, *in* Young and Jackson, The clever coyote, p. 296, Nov. 29, 1951).

Canis latrans mearnsi Merriam†*

1897. *Canis mearnsi* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 30, Mar. 15, 1897.

1897. *Canis estor* Merriam†, Proc. Biol. Soc. Washington, vol. 11, p. 31, Mar. 15, 1897. (Noland's Ranch, on north side of San Juan River, 1½ miles above present "Four Corners," San Juan County, Utah; see Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 2, Apr. 10, 1931.)

1932. *Canis latrans mearnsi* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Quitobaquito, Pima County, Ariz. *Range.*—Extreme southwestern Colorado (San Juan County), Utah and Nevada south of about lat. 37° N.; southeastern California south of lat. 37° N., and mainly east of long. 118° W.; northeastern Baja California, Arizona, New Mexico west of Rio Grande; most of Sonora and Chihuahua (Jackson, *in* Young and Jackson, The clever coyote, p. 298, Nov. 29, 1951).

Canis latrans jamesi C. H. Townsend†*

1912. *Canis jamesi* C. H. Townsend, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 130, June 14, 1912.

1932. *Canis latrans jamesi* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Tiburón Island, Gulf of California, Sonora, México. *Range.*—Restricted to Tiburón Island.

Canis latrans microdon Merriam†*

1897. *Canis microdon* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 29, Mar. 15, 1897.

1932. *Canis latrans microdon* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Mier, on the Río Grande, Tamaulipas, México. *Range.*—Lower Rio Grande region, extreme northeastern Nuevo León, extreme northern Tamaulipas, and extreme southern Texas in southern parts of Cameron, Hidalgo, and Starr Counties; southern limits of range in Tamaulipas unknown (Jackson, *in* Young and Jackson, The clever coyote, p. 304, Nov. 29, 1951).

Canis latrans texensis V. Bailey†*

1897. *Canis frustror* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 26, Mar. 15, 1897. (Not of Woodhouse, 1851.)

1905. *Canis nebracensis texensis* V. Bailey, North Amer. Fauna No. 25, p. 175, Oct. 24, 1905.

1932. *Canis latrans texensis* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Forty-five miles southwest of Corpus Christi, at Santa Gertrudis, Kleberg County, Tex. *Range.*—Texas west of Gulf of Mexico coast region at long. 97° W. (Nueces Bay) in the south, except extreme southern Texas in lower Rio Grande region, west of long. 99° W., in the north, and south of Panhandle region (about lat. 34° N.) ; New Mexico east of Rio Grande and south of about lat. 35°30′ N.; northern Coahuila; and extreme northwestern Tamaulipas (Jackson, *in* Young and Jackson, The clever coyote, p. 275, Nov. 29, 1951).

Canis latrans impavidus J. A. Allen*

1903. *Canis impavidus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 609, Nov. 12, 1903.

1932. *Canis latrans impavidus* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Río de las Bocas, northwest Durango, México. Altitude, 7,000 feet. *Range.*—Pacific coast drainage of western Mexico between about lat. 22° N. and 26° N.; extreme southern Sonora, extreme southwestern Chihuahua, western Durango, western Zacatecas, and Sinaloa (Jackson, *in* Young and Jackson, The clever coyote, p. 306, Nov. 29, 1951).

Canis latrans cagottis (Hamilton-Smith) *

1839. *Lyciscus cagottis* Hamilton-Smith, *in* The naturalist's library (Edit. Jardine), vol. 25 (Mammalia, vol. 9, Dogs, vol. 1), p. 164.

1897. *Canis cagottis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 27, Mar. 15, 1897.

1932. *Canis latrans cagottis* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224. Nov. 26, 1932.

Type Locality.—Río Frío, west slope of Mount Iztaccíhuatl, Valley of México, between city of México and Puebla, México. *Range.*—Represented by specimens from States of México, Oaxaca, San Luis Potosí, Puebla, and Veracruz, México; range may possibly extend into southern Nuevo León and southern Tamaulipas (Jackson, *in* Young and Jackson, The clever coyote, p. 307, Nov. 29, 1951).

Canis latrans vigilis Merriam†*

1897. *Canis vigilis* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 33, Mar. 15, 1897.

1932. *Canis latrans vigilis* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Manzanillo, Colima, México. *Range.*—Pacific coast, slope, and drainage of western México between lat. 16° and 22° N. (Jackson, *in* Young and Jackson, The clever coyote, p. 310, Nov. 29, 1951).

Canis latrans goldmani Merriam†*

1904. *Canis goldmani* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 157, Oct. 6, 1904.

1932. *Canis latrans goldmani* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—San Vicente, Chiapas, México, near Guatemala border. *Range.*—Known only from type locality, but may presumably be the coyote of western Guatemala (Jackson, *in* Young and Jackson, The clever coyote, p. 311, Nov. 29, 1951).

Canis latrans hondurensis Goldman†*

1936. *Canis hondurensis* Goldman, Journ. Washington Acad. Sci., vol. 26, No. 1, p. 33, Jan. 15, 1936.

1951. *Canis latrans hondurensis* Jackson, *in* Young and Jackson, The clever coyote, p. 313, Nov. 29, 1951.

Type Locality.—Cerro Guiñote, northeast of Archaga, on the Talanga road north of Tegucigalpa, Francisco Morazán, Honduras. *Range.*—Known only from region of type locality in southwest-central Honduras (Jackson, loc cit.).

Canis latrans dickeyi Nelson

1932. *Canis latrans dickeyi* Nelson, Proc. Biol. Soc. Washington, vol. 45, p. 224, Nov. 26, 1932.

Type Locality.—Near Cerro Mogote, lat. 13°30′ N., 2 miles west of Río Goascorán, District of La Unión, El Salvador. *Range.*—Known by specimens only from type locality; assumed to be the subspecies known to occur in parts of Costa Rica and other parts of El Salvador, and possibly western Nicaragua (Jackson, *in* Young and Jackson, The clever coyote, p. 312, Nov. 29, 1951).

Subgenus CANIS[76] Linnaeus (dogs and wolves proper)

Canis lupus tundrarum Miller†*

1912. *Canis tundrarum* Miller, Smithsonian Misc. Coll., vol. 59, No. 15, p. 1, June 8, 1912.

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[76] North American species and subspecies listed by Goldman, Journ. Mamm., vol. 18, No. 1, p. 45, Feb. 11, 1937; revised by Goldman, *in* Young and Goldman, The wolves of North America, pp. 411–489, May 29, 1944.

1935. *Canis lupus tundrarum* Pocock, Proc. Zool. Soc. London, 1935, pt. 3, p. 681, Sept. 12, 1935.—Goldman, Journ. Mamm., vol. 18, No. 1, p. 45, Feb. 11, 1937; *in* Young and Goldman, The wolves of North America, p. 417, May 29, 1944.

Type Locality.—Point Barrow, Alaska. *Range.*—Tundra region of Alaska from Bering Sea and along coast of Arctic Ocean in northern Alaska and Arctic part of Yukon and Mackenzie District, Northwest Territories, Canada, west of Mackenzie River delta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 57, Jan. 24, 1947); south to Noatak River Valley. Intergrading on south with *pambasileus* and on east along Arctic coast with *mackenzii.*

Canis lupus pambasileus Elliot*

1905. *Canis pambasileus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 79, Feb. 21, 1905.

1935. *Canis lupus pambasileus* Pocock, Proc. Zool. Soc. London, 1935, pt. 3, p. 673, Sept. 12, 1935.—Goldman, *in* Young and Goldman, The wolves of North America, p. 419, May 29, 1944.

Type Locality.—Susitna River, region of Mount McKinley, Alaska. *Range.*—Interior and most of western and southwestern Alaska, including Seward Peninsula, Yukon, Kuskokwim and Susitna River Valleys, and Mount McKinley region; ranging east into central Yukon.

Canis lupus alces Goldman†*

1941. *Canis lupus alces* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 109, Sept. 30, 1941.

Type Locality.—Kachemak Bay, Kenai Peninsula, Alaska. *Range.*—Known only from type locality near southern end of Kenai Peninsula.

Canis lupus mackenzii Anderson

1908. *Canis occidentalis albus* Preble, North Amer. Fauna No. 27, p. 213, Oct. 26, 1908. (Not *Canis lupus albus* Kerr, 1792.)

1943. *Canis lupus mackenzii* Anderson, Journ. Mamm., vol. 24, No. 3, p. 288, Aug. 17, 1943.

Type Locality.—Imnaruit, west of Kater Point, Bathurst Inlet, District of Mackenzie, Northwest Territories, Canada, lat. 67° 44′ 20″ N., long. 109° 04′ 03″ W. *Range.*—Arctic coast and tundra region of Mackenzie District from Mackenzie delta east to southern Victoria Island and Queen Maud Sea, south to northern and eastern sides of Great Bear Lake, upper Coppermine and upper Back Rivers, intergrading with *occidentalis* in southern parts of its range and presumably with *hudsonicus* to the eastward.

Canis lupus bernardi Anderson

1943. *Canis lupus bernardi* Anderson, Journ. Mamm., vol. 24, No. 3, p. 389, Aug. 17, 1943.

1943. *Canis lupus banksianus* Anderson, Journ. Mamm., vol. 24, No. 3, p. 390, Aug. 17, 1943. (Inadvertent renaming of *bernardi.*)

Type Locality.—Cape Kellett, southwestern part of Banks Island, District of Franklin, Northwest Territories, Canada; lat. about 72° N., long. 125° W. *Range.*—Known only from Banks Island, but probably occurs also on northwestern Victoria Island.

Canis lupus manningi Anderson

1943. *Canis lupus manningi* Anderson, Journ. Mamm., vol. 24, No. 3, p. 392, Aug. 17, 1943.

Type Locality.—Hantzsch River, east side of Foxe Basin, west coast of Baffin Island, District of Franklin, Northwest Territories, Canada, lat. about 67° N., long. 24° W. *Range.*—All parts of Baffin Island from Hudson Strait to Pond Inlet; probably also on Bylot Island.

Canis lupus arctos Pocock*

1935. *Canis lupus arctos* Pocock, Proc. Zool. Soc. London, 1935, pt. 3, p. 682, Sept. 12, 1935.

Type Locality.—Melville Island, Northwest Territories, Canada. *Range.*—Melville Island, Sverdrup Islands, and Ellesmere Island, and probably some neighboring islands.

Canis lupus orion Pocock

1935. *Canis lupus orion* Pocock, Proc. Zool. Soc. London, 1935, pt. 3, p. 683, Sept. 12, 1935.

Type Locality.—Cape York, Baffin Bay, northwest Greenland. *Range.*—Northern Greenland, Arctic America; limits of range unknown.

Canis lupus labradorius Goldman†*

1937. *Canis lupus labradorius* Goldman, Journ. Mamm., vol. 18, No. 1, p. 38, Feb. 11, 1937.

Type Locality.—Vicinity of Fort Chimo (now Chimo), Quebec, Canada. *Range.*—Northern Quebec and Labrador.

Canis lupus beothucus G. M. Allen and Barbour*

1937. *Canis lupus beothucus* G. M. Allen and Barbour, Journ. Mamm., vol. 18, No. 2, p. 230, May 12, 1937.

Type Locality.—Newfoundland. *Range.*—Confined to Newfoundland; now probably extinct.

Canis lupus hudsonicus Goldman†*

1941. *Canis lupus hudsonicus* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 112, Sept. 30, 1941; *in* Young and Goldman, The wolves of North America, p. 427, May 29, 1944.

Type Locality.—Head of Schultz Lake, District of Keewatin, Northwest Territories, Canada. *Range.*—Northern Keewatin District, including northwestern coast of Hudson Bay (Cape Fullerton), west to northeastern Mackenzie District (Back River, 20 miles below Lake Beechey) and region east of Great Slave Lake.

Canis lupus occidentalis Richardson*

1829. *Canis lupus occidentalis* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 60.

1912. *Canis occidentalis* Miller, Smithsonian Misc. Coll., vol. 59, No. 15, p. 4, June 8, 1912.

1935. *Canis lupus occidentalis* Pocock, Proc. Zool. Soc. London, 1935, pt. 3, p. 673, Sept. 12, 1935.—Goldman, *in* Young and Goldman, The wolves of North America, p. 424, May 29, 1944.

Type Locality.—Simpson, near mouth of Liard River, Mackenzie District, Northwest Territories, Canada. *Range.*—From northern Alberta along eastern side of Rocky Mountain ranges in Mackenzie Valley to Arctic Circle or beyond, intergrading with *mackenzii* north of Great Bear Lake, with *hudsonicus* east of Great Slave Lake, with *knightii* in northeastern Alberta, with *columbianus* in northwestern Alberta, and perhaps with *pambasileus* in Liard Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 56, Jan. 24, 1947).

Canis lupus griseoalbus Baird

1823. *Canis Lupus-Griseus* Sabine, *in* Franklin, Narrative of a journey to the shores of the Polar Sea, in 1819–22, p. 655 (Appendix), plate opposite p. 312.

1858. *Canis occidentalis* var. *griseo-albus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 104, July 14, 1858.

1943. *Canis lupus griseus* Anderson, Journ. Mamm., vol. 24, No. 3, pp. 386, 390, Aug. 18, 1943. (A homonym, preoccupied by *Canis griseus* Boddaert, Elenchus animalium, p. 97, 1784, a synonym of *Canis cinereo argenteus* Schreber, Die Säugthiere . . . , Theil 2, Heft 13, pl. 92, 1775.)

1947. *Canis lupus knightii* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 54, Jan. 24, 1947.

1952. *Canis lupus griseoalbus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 338, Dec. 5, 1952.

Type Locality.—Cumberland House, Saskatchewan, about 35 miles northwest of The Pas, Manitoba, and about 15 miles west of the present Manitoba-Saskatchewan interprovincial boundary, lat. 54° N., long. 101°40′ W. *Range.*—Forested regions of northern Manitoba and Saskatchewan; south formerly to edge of prairie region about Carlton, Saskatchewan; east into central and southeastern Manitoba (casually at Riding Mountain National Park), and presumably west into northeastern Alberta, intergrading with *occidentalis* in that region, and with *hudsonicus* along northern boundary of Manitoba; presumably intergrading with *nubilus* in central Saskatchewan in former times.

Canis lupus columbianus Goldman*

1941. *Canis lupus columbianus* Goldman, Proc. Biol. Soc. Washington, vol. 54, p. 110, Sept. 30, 1941.

Type Locality.—Wistaria, north side of Ootsa Lake, Coast district, British Columbia, Canada. *Range.*—Greater part of British Columbia, west of Rocky Mountains and in Stikine Mountains, passing into *fuscus* near southwestern coast and into *ligoni* along coast bordering Alexander Archipelago of southwestern Alaska.

Canis lupus ligoni Goldman†*

1937. *Canis lupus ligoni* Goldman, Journ. Mamm., vol. 18, No. 1, p. 39, Feb. 11, 1937.

Type Locality.—Head of Duncan Canal, Kupreanof Islands, Alexander Archipelago, Alaska. *Range.*—Alexander Archipelago and adjacent mainland of southeastern Alaska; northward along coast of Yakutat Bay.

Canis lupus lycaon Schreber*

1775. *Canis lycaon* Schreber, Die Säugthiere . . . , Theil 2, Heft 13, pl. 89.
1843. *Canis lupus canadensis* Blainville, Ostéographie ou description iconographique . . . , Paris, Atlas, vol. 2, fasc. 13 (Carnassiers, Genre Canis), p. 45, pl. 7 (Canada).
1912. *Canis lycaon* Miller, Proc. Biol. Soc. Washington, vol. 25, p. 95, May 4, 1912.
1937. *Canis lupus canadensis* G. M. Allen and Barbour, Journ. Mamm., vol. 18, No. 2, p. 230, May 12, 1937.
1937. *Canis lupus lycaon* Goldman, Journ. Mamm., vol. 18, No. 1, p. 45, Feb. 11, 1937; Goldman, *in* Young and Goldman, The wolves of North America, p. 437, May 29, 1944.
1940. *Canis tundrarum ungavensis* Comeau, Ann. l'Acfas, Montreal, vol. 6, p. 121 (35 miles north of village of Godbout, on north coast, Quebec).

Type Locality.—Vicinity of Quebec, Quebec, Canada (Goldman, Journ. Mamm., vol. 18, No. 1, p. 38, Feb. 11, 1937). *Range.*—Eastern Quebec to western and northern Ontario, eastern Minnesota, Michigan, Ohio, Northeastern and Middle Atlantic States; southern limit of range indefinitely determined, but believed to have extended to Florida. Still present in southern Quebec, Ontario, and parts of northern Minnesota, Wisconsin, and northern Michigan.

Canis lupus nubilus Say*

1823. *Canis nubilus* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 1, p. 169.
1829. *Canis lupus* var. *nubilus* Richardson, Fauna Boreali-Americana; . . . , p. 69.
1884. *Canis lupus griseo-albus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)
1894. *Canis mexicanus nubilus* Rhoads, Amer. Nat., vol. 28, p. 524, June 1894.
1935. *Canis lupus nubilus* Pocock, Proc. Zool. Soc. London, 1935, pt. 3, p. 677, Sept. 12, 1935.—Goldman, *in* Young and Goldman, The wolves of North America, p. 441, May 29, 1944.

Type Locality.—Engineer Cantonment, near present town of Blair, Washington County, Nebr. *Range.*—Formerly Great Plains region from southern Alberta and Saskatchewan, and probably southwestern Manitoba, south to northeastern New Mexico and southern Oklahoma, and from near eastern base of Rocky Mountains east to western Minnesota, western Iowa, and Missouri; now probably extinct.

Canis lupus irremotus Goldman†*

1937. *Canis lupus irremotus* Goldman, Journ. Mamm., vol. 18, No. 1, p. 41, Feb. 11, 1937.

Type Locality.—Red Lodge, Carbon County, Mont. *Range.*—Formerly northern Rocky Mountain region and high adjoining plains, from southern Alberta (Calgary and Lethbridge), south through Idaho and western Wyoming, east to Black Hills (Belle Fourche) of South Dakota.

Canis lupus crassodon Hall*

1932. *Canis occidentalis crassodon* Hall, Univ. California Publ. Zool., vol. 38, No. 12, p. 420, Nov. 8, 1932.

1937. *Canis lupus crassodon* Goldman, Journ. Mamm., vol. 18, No. 1, p. 45, Feb. 11, 1937.

Type Locality.—Tahsis Canal, Nootka Sound, Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island.

Canis lupus fuscus Richardson*

1839. *Canis lupus* var. *fusca* Richardson, *in* Beechey, The zoology of Captain Beechey's voyage in His Majesty's ship *Blossom* . . . , p. 5.

1850. *Lupus gigas* J. K. Townsend, Journ. Acad. Nat. Sci. Philadelphia, vol. 2, p. 75, November 1850. (Near Vancouver, Clark County, Wash.)

1937. *Canis lupus fuscus* G. M. Allen and Barbour, Journ. Mamm., vol. 18, No. 2, p. 230, May 12, 1937.

Type Locality.—Banks of the Columbia River, below The Dalles, in Oregon or Washington. *Range.*—Formerly forested region from Cascade Range in Oregon and Washington west in places to Pacific coast; south to undetermined limits along Sierra Nevada in northeastern California, and probably northwestern Nevada, north on mainland coast of southwestern British Columbia at least as far as Kimsquit at head of Dean Channel; on east intergradation with *columbianus* and *irremotus* can safely be assumed. Probably still extant in some of wilder sections near coast of southwestern British Columbia and Siskiyou Mountains of southern Oregon.

Canis lupus youngi Goldman†*

1937. *Canis lupus youngi* Goldman, Journ. Mamm., vol. 18, No. 1, p. 40, Feb. 11, 1937.

Type Localtiy.—Hart's Draw, north slope of Blue Mountains, 20 miles northwest of Monticello, San Juan County, Utah. *Range.*—Formerly numerous in Rocky Mountain region from northern Utah and southern Wyoming south through Utah and western Colorado to northern Arizona and northern New Mexico; west irregularly to central Nevada (Gold Creek, Elko County) and sporadically at least to southeastern California (Providence Mountains). Now extremely rare and restricted to rugged territory bordering upper Colorado River in southeastern Utah and southwestern Colorado.

Canis lupus mogollonensis Goldman†*

1937. *Canis lupus mogollonensis* Goldman, Journ. Mamm., vol. 18, No. 1, p. 43, Feb. 11, 1937.

Type Locality.—S. A. Creek, 10 miles northwest of Luna, Catron County, N. Mex. *Range.*—Formerly Mogollon Plateau region, extending nearly across central Arizona, and east through Mogollon Mountains of central western New Mexico; now rare if not extinct.

Canis lupus monstrabilis Goldman†*

1937. *Canis lupus monstrabilis* Goldman, Journ. Mamm., vol. 18, No. 1, p. 42, Feb. 11, 1937.

Type Locality.—Ten miles south of Rankin, Upton County, Tex. *Range.*—Formerly southern and most of western Texas (apparently replaced by *baileyi* in extreme western part), southeastern New Mexico and south into northeastern México (Matamoros); now probably extinct.

Canis lupus baileyi Nelson and Goldman†*

1929. *Canis nubilus baileyi* Nelson and Goldman, Journ. Mamm., vol. 10, No. 2, p. 165, May 9, 1929.

1937. *Canis lupus baileyi* Goldman, Journ. Mamm., vol. 18, No. 1, p. 45, Feb. 11, 1937.

Type Locality.—Colonia García (about 60 miles southwest of Casas Grandes), Chihuahua, México. Altitude, 6,700 feet. *Range.*—Sierra Madre and adjoining tableland region of western México, formerly extending north to southeastern Arizona (Fort Bowie), southwestern New Mexico (Hatch), and western Texas (Fort Davis), south to Valley of México; still living in northern part of Sierra Madre; exact southern and eastern limits undetermined.

Canis niger niger Bartram*

1791. *Lupus niger* Bartram, Travels . . . , p. 199.

1912. *Canis floridanus* Miller†, Proc. Biol. Soc. Washington, vol. 25, p. 95, May 4, 1912. (Horse Landing, St. Johns River, about 12 miles south of Palatka, Putnam County, Fla.)

1942. *Canis niger niger* Harper, Journ. Mamm., vol. 23, No. 3, p. 339, Aug. 14, 1942.

1944. *Canis niger niger* Goldman, *in* Young and Goldman, The wolves of North America, p. 481, May 29, 1944.

Type Locality.—Alachua Savanna (now Payne's Prairie), Alachua County, Fla. *Range.*—Formerly Florida, Georgia, and Alabama; limits of range undetermined, but probably included South Carolina; believed to be now extinct.

Canis niger gregoryi Goldman†*

1937. *Canis rufus gregoryi* Goldman, Journ. Mamm., vol. 18, No. 1, p. 44, Feb. 11, 1937.

1942. *Canis niger gregoryi* Harper, Journ. Mamm., vol. 23, No. 3, p. 339, Aug. 14, 1942.

Type Locality.—Mack's Bayou, 3 miles east of Tensas River, 18 miles southwest of Tallulah, Madison Parish, La. *Range.*—Formerly Mississippi River Valley, north at least to Warsaw, Ill., and Wabash, northern Indiana; probably western Kentucky and western Tennessee; west throughout Ozark Mountain region in southern Missouri and Arkansas (except northwestern part) to southeastern Oklahoma, and from lowlands of Louisiana west to eastern Texas; east to southeastern Mississippi. Intergradation with *rufus* on west and with *niger* on east is evident. (Specimens from Reeds Spring, 5 miles north of Gainesville, and 3 miles north of Thomasville, all localities in southern Missouri, allocated to *rufus* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist. Hist., vol. 5, No. 25, p. 340, Dec. 5, 1952.)

Canis niger rufus Audubon and Bachman*

1851. *Canis lupus* var. *rufus* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, p. 240.

1905. *Canis rufus* V. Bailey, North Amer. Fauna No. 25, p. 174, Oct. 24, 1905.

1937. *Canis rufus rufus* Goldman, Journ. Mamm., vol. 18, No. 1, p. 45, Feb. 11, 1937.

1942. *Canis niger rufus* Harper, Journ. Mamm., vol. 23, No. 3, p. 339, Aug. 14, 1942.

Type Locality.—Name restricted by Goldman (loc. cit.) to the subspecies that occurs 15 miles west of Austin, Travis County, Tex. *Range.*—Formerly northwestern Arkansas, eastern Oklahoma except Ozark Mountains in southeastern corner, and south through central Texas to Gulf coast near Aransas Bay; west to Pecos River Valley. Now believed to be restricted to parts of central and southern Texas, intergrading with *gregoryi* in eastern part of the State.

Genus ALOPEX Kaup (arctic foxes)

1829. *Alopex* Kaup, Skizzirte Entwickelungs-Geschichte und Natürliches System der Europäischen Thierwelt, pt. 1, p. 85. (Type, *Canis lagopus* Linnaeus.)

Alopex lagopus groenlandicus (Bechstein) *

1799. *Canis groenlandicus* Bechstein, Thomas Pennant's allgemeine Uebersicht der vierfüssigen Thiere, vol. 1, p. 270.

1898. *? Canis lagopus spitzbergenensis* Barrett-Hamilton and Bonhote, Ann. Mag. Nat. Hist., ser. 7 vol. 1, p. 287, April 1898. (Spitzbergen.)

1947. *Alopex lagopus groenlandicus* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 50, Jan. 24, 1947.

Type Locality.—Greenland. *Range.*—Greenland and parts of Ellesmere Island, Northwest Territories, Canada.

Alopex lagopus innuitus (Merriam) †*

1902. *Vulpes lagopus innuitus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 170, Aug. 6, 1902.

1911. *V[ulpes] lagopus kenaiensis* Brass, Aus dem Reiche der Pelze, p. 466, April 1911. (Not *Vulpes kenaiensis* Merriam. Mainland of Alaska.)

1912. *Alopex lagopus innuitus* Miller, U. S. Nat. Mus. Bull. 79, p. 82, Dec. 31, 1912.

Type Locality.—Karogar River, Point Barrow, Alaska. *Range.*—Arctic coast and tundra region from western and northern Alaska, northern Yukon, and Mackenzie and Keewatin Districts of Northwest Territories to west side of Hudson Bay and Baffin Island; northern parts of Alberta, Saskatchewan, and Manitoba, and that part of northwestern Ontario bordering on Hudson Bay; found on most islands of Canadian Arctic and ranges far out on sea ice in winter (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 51, Jan. 24, 1947).

Alopex lagopus ungava (Merriam) †*

1884. *Vulpes lagopus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1902. *Vulpes lagopus ungava* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 170, Aug. 6, 1902.

1912. *Alopex lagopus ungava* Miller, U. S. Nat. Mus. Bull. 79, p. 82, Dec. 31, 1912.

Type Locality.—Fort Chimo, south of Ungava Bay, Quebec, Canada. *Range.*—Ordinarily restricted to treeless parts of Labrador and northern Ungava Peninsula, but some winters appears in considerable numbers as far south as north shore of Gulf of St. Lawrence (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 51, Jan. 24, 1947).

Alopex hallensis (Merriam)†*

1900. *Vulpes hallensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 15, Mar. 14, 1900.

1912. *Alopex hallensis* Miller, U. S. Nat. Mus. Bull. 79, p. 82, Dec. 31, 1912.

Type Locality.—Hall Island, Bering Sea, Alaska. *Range.*—Hall, St. Lawrence, and St. Matthew Islands, Bering Sea.

Alopex pribilofensis (Merriam)†*

1902. *Vulpes pribilofensis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 171, Aug. 6, 1902.

1912. *Alopex pribilofensis* Miller, U. S. Nat. Mus. Bull. 79, p. 82, Dec. 31, 1912.

Type Locality.—St. George Island, Pribilof Islands, Alaska. *Range.*—Pribilof Islands.

Genus VULPES[77] Oken (foxes)

1816. *Vulpes* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sect. 2, p. 1033. (Type, *Canis vulpes* Linnaeus.)

1821. *Vulpes* Bowdich, An analysis of the natural classifications of Mammalia, p. 40. (Type, *Canis vulpes* Linnaeus.)

fulva—group[78] (red foxes)

Vulpes fulva fulva (Desmarest)*

1820. *Canis fulvus* Desmarest, Mammalogie, . . . , pt. 1, p. 203, 1820 [*in* Encyclopédie methodique . . .].

1842. *Vulpes fulvus* De Kay, Zoology of New York, . . . , vol. 1, pt. 1 (Mammalia), 1842 (*in* [New York State], Natural history of New York).

1884. *Vulpes fulvus fulvus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1894. *Vulpus* [sic] *pensylvanicus* Rhoads, Amer. Nat., vol. 28, p. 524, June 1894.

1899. *Vulpes fulvus* Miller, Bull. N. Y. State Mus. Nat. Hist., Albany, vol. 6, p. 342, Nov. 18, 1899.

1911. *V[ulpes] pensylvaniae* Brass, Aus dem Reiche der Pelze, p. 452, April 1911. (Renaming of *pensylvanicus.*)

1925. *Vulpes fulva fulva* Soper, Journ. Mamm., vol. 4, No. 4, p. 251, November 1923.—V. Bailey, Nature Mag., vol. 28, No. 5, p. 272, November 1936.

1941. *V[ulpes] v[ulpes] fulva* Pocock, The fauna of British India, . . . , Mammalia, vol. 2, p. 120, Sept. 15, 1941.

Type Locality.—Virginia. *Range.*—United States east of the Great Lakes, from northern Alabama, Georgia, and Carolinas north to southern Quebec and southern Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 48, Jan. 24, 1947).

Vulpes fulva rubricosa Bangs*

1897. *Vulpes pennsylvanica vafra* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 53, Mar. 16, 1897. (Not *Vulpes vafer* Leidy, 1869.)

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[77] Names published by Oken in 1816 regarded by Hershkovitz, Journ. Mamm., vol. 30, No. 3, p. 292, Aug. 17, 1949, as non-Linnaean and not available.

[78] Revised by Merriam, Proc. Washington Acad. Sci., vol. 2, pp. 661–676, Dec. 28, 1900. See also V. Bailey, Nature Mag., vol. 28, No. 5, pp. 269–272, 317, November 1936.

1898. *Vulpes pennsylvania rubricosa* Bangs, Science, new ser., vol. 7, p. 272, Feb. 25, 1898.

1900. *Vulpes fulvus rubricatus* Miller, Bull. N. Y. State Mus. Nat. Hist., Albany, vol. 8, p. 128, Nov. 21, 1900. (Accidental renaming of *rubricosa.*)

1900. *Vulpes rubricosa* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 666, Dec. 28, 1900.

1936. *Vulpes fulva rubricosa* C. Sheldon, Journ. Mamm., vol. 17, No. 3, p. 211, August 1936.—V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Digby, Nova Scotia, Canada. *Range.*—Nova Scotia including Cape Breton Island, New Brunswick, Prince Edward Island, central and western Quebec to southern end of James Bay, and northern Ontario west to Lake Superior (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 49, Jan. 24, 1947).

Vulpes fulva deletrix Bangs*

1898. *Vulpes deletrix* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 36, Mar. 24, 1898.

1936. *Vulpes fulva deletrix* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Bay St. George, Newfoundland. *Range.*—Restricted to Island of Newfoundland.

Vulpes fulva bangsi Merriam*

1900. *Vulpes rubricosa bangsi* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 667, Dec. 28, 1900.

1936. *Vulpes fulva bangsi* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—L'Anse au Loup, Strait of Belle Isle, Labrador. *Range.*—Northern Quebec and coast of Labrador from northern end of James Bay east to Strait of Belle Isle and north to Hudson Strait; southwestern limits of range imperfectly known (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 48, Jan. 24, 1947).

Vulpes fulva regalis Merriam†*

1900. *Vulpes regalis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 672, Dec. 28, 1900.

1929. *Vulpes fulva regalis* B. Bailey, Journ. Mamm., vol. 10, No. 2, p. 157, May 1929.—V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—From west side of Great Lakes and southwest side of Hudson Bay throughout northwestern Ontario, central and southern Manitoba and Saskatchewan and southeastern Alberta, south to Kansas and Missouri (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 49, Jan. 24, 1947).

Vulpes fulva alascensis Merriam†*

1900. *Vulpes alascensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 668, Dec. 28, 1900.

1929. *Vulpes fulva alascensis* Hall, Univ. California Publ. Zool., vol. 30, No. 14, p. 421, March 19, 1929.—V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Andreafski, about 70 miles above delta of the Yukon River, Alaska. *Range.*—Through most of northern and central Alaska, northern and central parts of Yukon, and Mackenzie District of Northwest Territories as far south as Great Slave Lake and east to Coronation Gulf and Bathurst Inlet (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 48, Jan. 24, 1947).

Vulpes fulva harrimani Merriam†*

1900. *Vulpes harrimani* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 14, Mar. 14, 1900.

1936. *Vulpes fulva harrimani* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Kodiak Island, Alaska. *Range.*—Kodiak Island.

Vulpes fulva kenaiensis Merriam†*

1900. *Vulpes kenaiensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 670, Dec. 28, 1900.

1936. *Vulpes fulva kenaiensis* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Kenai Peninsula, Alaska. *Range.*—Kenai Peninsula; limits of range unknown.

Vulpes fulva abietorum Merriam†*

1900. *Vulpes alascensis abietorum* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 669, Dec. 28, 1900.

1911. ? *V[ulpes] argenteus sitkaensis* Brass, Aus dem Reiche der Pelze, p. 448, April 1911. ("West coast, especially the Aleutian Islands." The name appears to be based on Sitka trade skins of the "so-called Sitka fox or Kodiak fox.")

1936. *Vulpes fulva abietorum* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Stuart Lake, British Columbia, Canada. *Range.*—Northern interior of British Columbia and probably southeastern Alaska, southeastern Yukon, and southwestern part of Mackenzie District, Northwest Territories, as far east as Slave River, and northern Alberta as far south as McMurray, Athabaska River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 48, Jan. 24, 1947).

Vulpes fulva macroura Baird†*

1852. *Vulpes macrourus* Baird, *in* Stansbury, Exploration and survey of the valley of the Great Salt Lake of Utah, . . . , (Spec. Sess., U. S. Senate, Exec. No. 3), App. C, p. 309, June 1852.

1884. *Vulpes macrurus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884.

1936. *Vulpes fulva macroura* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Wasatch Mountains bordering Great Salt Lake, Utah. *Range.*—From eastern Oregon (Blue Mountains and Steens Mountains) and mountainous parts of Idaho (absent from Snake River Plains and unknown from mountains to south and west) to Black Hills of South Dakota, and south in Rocky Mountains to northern New Mexico.

Vulpes fulva cascadensis Merriam†*

1900. *Vulpes cascadensis* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 665, Dec. 28, 1900.

1936. *Vulpes fulva cascadensis* V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Trout Lake, south base of Mount Adams, Cascade Mountains, Skamania County, Wash. *Range.*—Cascade Range from southern British Columbia south through Washington into Oregon.

Vulpes fulva necator Merriam†*

1900. *Vulpes necator* Merriam, Proc. Washington Acad. Sci., vol. 2, p. 664, Dec. 28, 1900.

1930. *Vulpes fulva necator* Grinnell, Dixon, and Linsdale, Univ. California Publ. Zool., vol. 35, p. 469, October 1930.—V. Bailey, Nature Mag., vol. 28, No. 5, p. 317, November 1936.

Type Locality.—Whitney Meadow, near Mount Whitney, High Sierra, Tulare County, Calif. Altitude, 9,500 feet. *Range.*—Chiefly high Sierra Nevada above 7,000 foot level; occurs, probably continuously or very nearly so, north from vicinity of Monache Meadows, Tulare County, to Sierra County; also on two mountain masses of which Lassen Peak and Mount Shasta are highest points (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 381, Aug. 10, 1937).

velox—group (kit foxes)

Vulpes macrotis macrotis Merriam†*

1888. *Vulpes macrotis* Merriam, Proc. Biol. Soc. Washington, vol. 4, p. 136, Feb. 18, 1888.

Type Locality.—Riverside, Riverside County, Calif. More exactly, on western margin of San Jacinto Plain in vicinity of Box Springs, within 10 miles southeast of Riverside. *Range.*—Open, level parts of San Diegan subfaunal district, from Alessandro, Perris, and San Jacinto Valleys, Riverside County, northwest at one time to San Fernando Valley, Los Angeles County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 109, Sept. 26, 1933).

Vulpes macrotis arsipus Elliot*

1904. *Vulpes arsipus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 256, Jan. 7, 1904.

1913. *Vulpes macrotis arsipus* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 287, Aug. 28, 1913.—Benson, Proc. Biol. Soc. Washington, vol. 51, pp. 19, 22, Feb. 18, 1938.

1931. *Vulpes macrotis arizonensis* Goldman†, Journ. Washington Acad. Sci., vol. 21, p. 249, June 4, 1931. (Two miles south of Tule Tanks, near Mexican boundary, Yuma County, Ariz. For status, see Benson, Proc. Biol. Soc. Washington, vol. 51, pp. 18–20, Feb. 18, 1938.)

Type Locality.—Daggett, Mohave Desert, San Bernardino County, Calif. *Range.*—The Colorado and Mohave Deserts, west to Palm Springs, Riverside County, and Victorville, San Bernardino County, and north at least to vicinity of Oasis, Mono County, in California; southern Nevada; Arizona; and northwestern Sonora.

Vulpes macrotis mutica Merriam†*

1902. *Vulpes muticus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 74, Mar. 22, 1902.

1913. *Vulpes macrotis muticus* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 287, Aug. 28, 1913.

1933. *Vulpes macrotis mutica* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 109, Sept. 26, 1933.

Type Locality.—Tracy, San Joaquin County, Calif. *Range.*—Dry plains of San Joaquin Valley of south and central California; on east side of Valley as far as vicinity of La Grange, Stanislaus County; formerly occurred on west side of Valley as far as Tracy, San Joaquin County; southernmost station of occurrence, Rose Station, Kern County (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 403, Aug. 10, 1937).

Vulpes macrotis tenuirostris Nelson and Goldman†*

1931. *Vulpes macrotis tenuirostris* Nelson and Goldman, Journ. Mamm., vol. 12, No. 3, p. 302, Aug. 24, 1931.

Type Locality.—Trinidad Valley, northwest base of Sierra San Pedro Mártir, Baja California, México. Altitude, 2,600 feet. *Range.*—Known only from open desert in Trinidad Valley on the Pacific slope in mountains of northern Baja California.

Vulpes macrotis devia Nelson and Goldman†*

1909. *Vulpes macrotis devius* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 25, Mar. 10, 1909.

Type Locality.—Llano de Yrais, opposite Magdalena Island, Baja California, México.

Vulpes macrotis neomexicana Merriam†*

1902. *Vulpes macrotis neomexicana* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 74, Mar. 22, 1902.

Type Locality.—Baird's Ranch, eastern side of San Andres Mountains, Dona Ana County, N. Mex. (about 50 miles north of El Paso, Tex. See Halloran. Journ. Mamm., vol. 26, No. 1, p. 93, Feb. 27, 1945). *Range.*—Pecos Valley (Carlsbad) westward through more arid valleys of southern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931) p. 298, Mar. 1, 1932), and southwestern Texas.

Vulpes macrotis nevadensis Goldman†*

1931. *Vulpes macrotis nevadensis* Goldman, Journ. Washington Acad. Sci., vol. 21, p. 250, June 4, 1931.

Type Locality.—Willow Creek Ranch, near Jungo, Humboldt County, Nev. *Range.*—Southeastern Oregon, western Nevada (south at least to Sodaville), interior valleys of central and eastern Nevada, western Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 402, Aug. 10, 1952) and southwestern Idaho.

Vulpes macrotis zinseri Benson

1938. *Vulpes macrotis zinseri* Benson, Proc. Biol. Soc. Washington, vol. 51, p. 21, Feb. 18, 1938.

Type Locality.—San Antonio de Jaral, southeastern Coahuila, México. *Range.*—Known only from type locality, but probably ranging in desert plains of Coahuila and San Luis Potosí, México.

Vulpes velox velox (Say) *

1823. [*Canis*] *velox* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 1, p. 487.

1851. *Vulpes velox* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, p. 13.

1884. *Vulpes velox* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884.

Type Locality.—South Platte River (in Logan County ?), Colo. (See Cary, North Amer. Fauna No. 33, p. 175, Aug. 17, 1911). *Range.*—Northeastern New Mexico (undoubtedly occupies Upper Sonoran Plains east of Pecos Valley and Sangre de Cristo Mountains), southeastern Colorado, and Staked Plains of northwestern Texas (V. Bailey, North Amer. Fauna No. 53, p. 300, Mar. 1, 1932); north on plains east of foothills through eastern Colorado, western Kansas, and presumably Nebraska; northern limits of range undetermined.

Vulpes velox hebes Merriam† *

1902. *Vulpes velox hebes* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 73, Mar. 22, 1902.

Type Locality.—Calgary, Alberta, Canada. *Range.*—From southeastern British Columbia, southern Alberta, and southwestern Saskatchewan south to prairies of North Dakota and Wyoming.

Genus UROCYON[79] Baird (gray foxes)

1858. *Urocyon* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 121, July 14, 1858. (Type, *Canis virginianus* Erxleben = *Canis cinereoargenteus* Schreber.)

Urocyon cinereoargenteus cinereoargenteus (Schreber) *

1775. *Canis cinereo argenteus* Schreber, Die Säugthiere . . . , Thiel 2, Heft 13, pl. 92.

1884. *Urocyon virginianus virginianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1894. *Urocyon cinereo-argenteus* Rhoads, Amer. Nat., vol. 28, p. 524, June 1894.

Type Locality.—Eastern North America. *Range.*—Pennsylvania and New Jersey south to Georgia, west to Mississippi River and north at least to north-central Illinois (Cory, Field Mus. Nat. Hist, Publ. 153, Zool. Ser., vol. 11, p. 300, 1912); southern Ontario and Lower Peninsula of Michigan south to Tennessee.

Urocyon cinereoargenteus floridanus Rhoads*

1895. *Urocyon cinereo-argenteus floridanus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 47, p. 42, Apr. 9, 1895.

Type Locality.—Tarpon Springs, Pinellas County, Fla. *Range.*—Florida north to southern Georgia, west to Louisiana (Lowery, Occ. Pap. Mus. Zool.,

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[79] Subspecies arranged by V. Bailey, Nature Mag., vol. 34, No. 9, pp. 493, 528, November 1941.

Louisiana State Univ., No. 13, p. 234, Nov. 22, 1943) and eastern Texas (Buechner, Journ. Mamm., vol. 25, No. 2, p. 185, May 26, 1944).

Urocyon cinereoargenteus borealis Merriam†*

1903. *Urocyon cinereoargenteus borealis* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 74, May 29, 1903.

Type Locality.—Marlboro, 7 miles from Monadnock, Cheshire County, N. H. *Range.*—Highlands of northeast and northwest Connecticut (Goodwin, Connecticut Geol. Nat. Hist. Surv. Bull. 53, p. 79, 1935) north through Vermont, New Hampshire, and Maine to southern Quebec and eastern Ontario; west through New York, northern Pennsylvania to northern Ohio (V. Bailey, Nature Mag., vol. 34, p. 495, November 1941).

Urocyon cinereoargenteus ocythous Bangs*

1899. *Urocyon cinereoargenteus ocythous* Bangs, Proc. New England Zool. Club, vol. 1, p. 43, June 5, 1899.

Type Locality.—Platteville, Grant County, Wis. *Range.*—Upper Mississippi Valley, from northern Illinois (Cory, Field Mus. Nat. Hist. Publ. 153, Zool. Ser., vol. 11, p. 303, 1912), Wisconsin, eastern and southern Minnesota, and southern South Dakota north to extreme southwestern corner of western Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 50, Jan. 24, 1947); south at least to Ozark County, Mo. (Leopold and Hall, Journ. Mamm., vol. 26, No. 2, p. 143, July 19, 1945), eastern Kansas east of Flint Hills (Black, Kansas State Board Agr. Thirtieth Biennial Rep., p. 166, 1938), and eastern Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 107, July 1939). Recorded also from Wilton, McLean County, N. Dak. (Schantz, Journ. Mamm., vol. 31, No. 2, p. 197, May 25, 1950); and from Old Fort Point, Lake Athabaska, Alberta (Moore, Journ. Mamm., vol. 33, No. 2, p. 253, May 16, 1952).

Urocyon cinereoargenteus scottii Mearns*

1891. *Urocyon virginianus scottii* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 236, June 5, 1891.

1895. *Urocyon cinereo-argenteus scottii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 253, June 29, 1895.

1897. *Urocyon cinereoargenteus texensis* Mearns†, Preliminary diagnoses of new mammals of the genera *Lynx, Urocyon*, *Spilogale*, and *Mephitis*, from the Mexican boundary line, p. 2, Jan. 12, 1897 (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 459, Dec. 24, 1897). (San Pedro, near Eagle Pass, Maverick County, Tex. Regarded by Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 495, Nov. 15, 1938, as identical with *scottii.*)

1904. *Urocyon cinereo-argenteus inyoensis* Elliot, Gield Columb. Mus. Publ. 90, Zool. Ser., vol. 3, p. 268, Mar. 7, 1904. (Beveridge Canyon, Inyo Mountains, Inyo County, Calif. Regarded by Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 436, Aug. 10, 1937, as identical with *scottii.*)

Type Locality.—Pinal County, Ariz. *Range.*—Northeastern Baja California (Colorado Desert district); Colorado and Mohave Deserts north to White Mountains in Mono County and west to eastern slopes of San Jacinto and Santa Rosa Mountains in Riverside County, Calif. (Grinnell, Dixon, and Linsdale, loc. cit.); southern half of Nevada (Hall, Mammals of Nevada, p. 239, July 1, 1946), north to Uinta National Forest in northeastern Utah (Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 2, Apr. 10, 1931), and east through Arizona and New Mexico to central Texas (Buechner, Journ. Mamm., vol. 25, No. 2, p. 185, May 26, 1944); south into Chihuahua (Majarachic), México (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 297, Aug. 14, 1942).

Urocyon cinereoargenteus townsendi Merriam†*

1899. *Urocyon californicus townsendi* Merriam, North Amer. Fauna No. 16, p. 103, Oct. 28, 1899.

1910. *Urocyon californicus sequoiensis* Dixon, Univ. California Publ. Zool., vol. 5, No. 7, p. 303, Feb. 12, 1910. (Lagunitas, Marin County, Calif.)

1933. *Urocyon cinereoargenteus townsendi* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 110, Sept. 26, 1933.

Type Locality.—Baird, Shasta County, Calif. *Range.*—From Columbia River south through interior valleys of western Oregon; and foothills and lower mountains in northern two-thirds of California west of Sierran divides from interior of Humboldt County east to vicinity of Mount Shasta and south through humid coast belt and foothills on either side of Great Valley to southern Monterey and Mariposa Counties (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 430, Aug. 10, 1937).

Urocyon cinereoargenteus californicus Mearns†*

1897. *Urocyon cinereoargenteus californicus* Mearns, Preliminary diagnoses of new mammals of the genera *Lynx*, *Urocyon*, *Spilogale*, and *Mephitis*, from the Mexican boundary line, p. 3, Jan. 12, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 459, Dec. 24, 1897.)

1899. *U[rocyon] californicus* Merriam, North Amer. Fauna No. 16, p. 103, Oct. 28, 1899.

1933. *Urocyon cinereoargenteus californicus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 110, Sept. 26, 1933.

Type Locality.—Tahquitz Valley, San Jacinto Mountains, Riverside County, Calif. Altitude, 8,000 feet. *Range.*—Baja California (south at least to Vizcaíno Desert district); and southern California west of desert divides northward near coast at least to Ventura County, and in foothills of southern Sierra Nevada to Tulare County (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 432, Aug. 10, 1937).

Urocyon cinereoargenteus peninsularis Huey*

1928. *Urocyon cinereoargenteus peninsularis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 5, p. 203, Sept. 1, 1928.

Type Locality.—San Ignacio, lat. 27° 24′ N., long. 112° 59′ W., Cape Region, Baja California, México. *Range.*—Southern half of Peninsula of Baja California.

Urocyon cinereoargenteus madrensis Burt and Hooper

1941. *Urocyon cinereoargenteus madrensis* Burt and Hooper, Occ. Pap. Mus. Zool. Univ. Michigan No. 430, p. 4, May 27, 1941.

Type Locality.—Carimechi, Río Mayo, Chihuahua, México. *Range.*—Known only from type locality, but probably ranges over most of southern Chihuahua, southeastern Sonora, and northern Durango and Sinaloa in Durangan biotic province.

Urocyon cinereoargenteus colimensis Goldman†*

1938. *Urocyon cinereoargenteus colimensis* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 495, Nov. 15, 1938.

Type Locality.—Three miles west of Colima, Colima, México. Altitude, 1,700 feet. *Range.*—Western México, mainly in and along Sierra Madre and more elevated parts of plateau region, from northern Sinaloa south to near Isthmus of Tehuantepec. Vertical range from sea level along Pacific coast to at least 8,500 feet on mountains bordering Valley of México.

Urocyon cinereoargenteus orinomus Goldman†*

1938. *Urocyon cinereoargenteus orinomus* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 497, Nov. 15, 1938.

Type Locality.—Orizaba, Veracruz, México. Altitude, 4,000 feet. *Range.*—Eastern México, from southern San Luis Potosí south to central Oaxaca. Vertical range from 2,000 feet at Jalpan, Querétaro, to 10,000 feet on Cerro San Felipe, Oaxaca; zonal range, mainly Humid Tropical.

Urocyon cinereoargenteus fraterculus Elliot*

1896. *Urocyon cinereo-argentatus* [sic] *fraterculus* Elliot, Field Columb. Mus. Publ. 11, Zool. Ser., vol. 1, No. 3 (May), p. 80, June 11, 1896.

1899. *Urocyon parvidens* Miller†, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 276, July 26, 1899. (Mérida, Yucatán, Mexico. Regarded by Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 495, Nov. 15, 1938, as identical with *fraterculus*.)

Type Locality.—San Felipe, Yucatán, México. *Range.*—Recorded also from Uaxactún, Petén, Guatemala (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 21, July 15, 1935); Esmeralda, Quintana Roo, México (Hatt and Villa, Anal. Inst. Biol., Univ. Nac. México, vol. 21, No. 1, p. 232, Sept. 28, 1950); and Belize, Stann Creek Valley, Camp London, and Kate's Lagoon, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 563, July 10, 1951).

Urocyon cinereoargenteus guatemalae Miller†*

1899. *Urocyon guatemalae* Miller, Proc. Acad. Nat. Sci. Philadelphia, vol. 51, p. 278, July 26, 1899. (Regarded as identical with *fraterculus* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 563, July 10, 1951).

1938. *Urocyon cinereoargenteus guatemalae* Goldman, Journ. Washington Acad. Sci., vol. 28, No. 11, p. 495, Nov. 15, 1938.

Type Locality.—Nentón, Huehuetenango, Guatemala. Altitude, 3,000 feet.

Urocyon cinereoargenteus costaricensis Goodwin

1938. *Urocyon cinereoargenteus costaricensis* Goodwin, Amer. Mus. Nov., No. 987, p. 2, May 13, 1938.

Type Locality.—Sabanilla de Pirris, a town on the Pacific coast range near Río Grande de Pirris, Province of San José, Costa Rica. Altitude, about 500 feet. *Range.*—Costa Rica.

Urocyon cinereoargenteus furvus G. M. Allen and Barbour

1923. *Urocyon cinereoargenteus furvus* G. M. Allen and Barbour, Bull. Mus. Comp. Zool., vol. 65, p. 266, February 1923.

Type Locality.—Three miles west of Balboa, Canal Zone, Panamá.

Urocyon littoralis littoralis (Baird) †*

1858. *Vulpes* (*Urocyon*) *littoralis* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1, (Washington, 1857), p. 143, July 14, 1858.

1884. *Urocyon virginianus littoralis* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 610, Nov. 29, 1884.

1888. *Urocyon littoralis* Merriam, Proc. Biol. Soc. Washington, vol. 4, p. 135, Feb. 18, 1888.

Type Locality.—San Miguel Island, Santa Barbara Islands, Calif. *Range.*—San Miguel Island.

Urocyon littoralis santarosae Grinnell and Linsdale

1930. *Urocyon littoralis santarosae* Grinnell and Linsdale, Proc. Biol. Soc. Washington, vol. 43, p. 154, Sept. 26, 1930.

Type Locality.—Santa Rosa Island, Santa Barbara Islands, Calif. *Range.*—Santa Rosa Island.

Urocyon littoralis santacruzae Merriam†*

1903. *Urocyon littoralis santacruzae* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 75, May 29, 1903.

Type Locality.—Santa Cruz Island, Santa Barbara Islands, Calif. *Range.*—Santa Cruz Island.

Urocyon littoralis dickeyi Grinnell and Linsdale

1930. *Urocyon littoralis dickeyi* Grinnell and Linsdale, Proc. Biol. Soc. Washington, vol. 43, p. 154, Sept. 26, 1930.

Type Locality.—San Nicolas Island, Santa Barbara Islands, Calif. *Range.*—San Nicolas Island.

Urocyon littoralis clementae Merriam†*

1903. *Urocyon clementae* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 75, May 29, 1903.

1930. [*Urocyon littoralis*] *clementae* Grinnell and Linsdale, Proc. Biol. Soc. Washington, vol. 43, p. 154, Sept. 26, 1930.

Type Locality.—San Clemente Island, Santa Barbara Islands, Ventura County, Calif. *Range.*—San Clemente Island.

Urocyon littoralis catalinae Merriam†*

1903. *Urocyon catalinae* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 74, May 29, 1903.

1937. *Urocyon littoralis catalinae* Grinnell, Dixon, and Linsdale, The furbearing mammals of California, vol. 2, p. 467, Aug. 10, 1937.

Type Locality.—Santa Catalina Island, Santa Barbara Islands, Calif. *Range.*—Santa Catalina Island.

Subfamily SIMOCYONINAE

Genus ICTICYON[80] Lund

1843. *Icticyon* Lund, Overs. Danske Vid. Selsk. Forh., 1842, p. 80, 1843 (Type, *Icticyon venaticus* Lund.)

Icticyon panamensis Goldman†*

1912. *Icticyon panamensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 14, Sept. 20, 1912.

Type Locality.—Head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 5,000 feet.

Family URSIDAE (bears)

Genus EUARCTOS[81] Gray (black bears)

1865. *Euarctos* Gray, Proc. Zool. Soc. London, 1864, pt. 3, p. 692, May 1865. (Type, *Ursus americanus* Pallas.)

Euarctos americanus americanus Pallas*

1780. *Ursus americanus* Pallas, . . . Spicilegia zoologica, . . ., fasc. 14, p. 5.
1884. *Ursus americanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.
1898. *Ursus* (*Euarctos*) *americanus sornborgeri* Bangs, Amer. Nat., vol. 32, p. 500, July 1898. (Okkak, Labrador, Canada. See Bangs, *in* Grenfell, Labrador: the country and the people, p. 467, 1909; and J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, pp. 1–5, Jan. 5, 1910.)
1913. *Ursus arctos schwenki* Shoemaker†, Stories of great Pennsylvania hunters, p. 25. (Union County, Pa. Some trimmings from the skin on which this name was based are in the U. S. National Museum.)
1918. *Eu*[*arctos*] *americanus* Pocock, Ann. Mag. Nat. Hist., ser. 9, vol. 1, p. 384, May 1918.

Type Locality.—Eastern North America. *Range.*—Wooded districts of North America from Nova Scotia and Labrador west of the foothills of the Rocky Mountains and southern part of Northwest Territories south to Georgia, northern Alabama, Arkansas, and eastern Kansas.

Euarctos americanus floridanus (Merriam)†*

1896. *Ursus floridanus* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 81, Apr. 13, 1896.

Type Locality.—Key Biscayne, Dade County, Fla. *Range.*—Florida west to swamps of southern Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 29, Oct. 28, 1921), and north to southern Georgia.

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[80] *Icticyon* Lund, 1843, regarded as identical with *Speothos* Lund, 1893, Ann. Sci. Nat., Paris, ser. 2 (Zool.), vol. 11, pp. 223–224, 232, April 1839, by Huxley, Proc. Zool. Soc. London, 1880, pt. 2, p. 278, August 1880; Winge, Pattedyr-Slaegter, Publ. Univ. Zool. Mus. Kφbenhavn, No. 31, vol. 2, p. 234, 1924; and Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, p. 110, Oct. 5, 1945.

[81] Canadian forms reviewed by Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1944, pp. 17–33, Nov. 2, 1945.

Euarctos americanus luteolus (Griffith) *

1821. *Ursus luteolus* Griffith, Class Quadrimembria, order Carnivora, general and particular description of carnivorous animals, . . . , p. 236.

1893. *Ursus luteolus* Merriam, Proc. Biol. Soc. Washington, vol. 8, p. 147, Dec. 29, 1893.

1946. *Euarctos americanus luteolus* Peterson, Journ. Mamm., vol. 27, No. 2, p. 166, May 14, 1946.

Type Locality.—Louisiana. *Range.*—Louisiana (see Lowery, Proc. Louisiana Acad.. Sci., vol. 3, No. 1, p. 18, March 1936) and probably southeastern Texas.

Euarctos americanus perniger (J. A. Allen) *

1910. *Ursus americanus kenaiensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 6, Jan. 5, 1910. (Not *kenaiensis* Merriam, 1904.)

1910. *Ursus americanus perniger* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 115, Apr. 30, 1910. (Substitute for *kenaiensis* J. A. Allen.)

Type Locality.—Homer, Kenai Peninsula, Alaska. *Range.*—Mainland of southern Alaska from Kenai Peninsula to region of Yakutat Bay, intergrading with *emmonsii* in region north of St. Elias Alps (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 190, Jan. 24, 1947).

Euarctos americanus pugnax (Swarth)

1911. *Ursus americanus pugnax* Swarth, Univ. California Publ. Zool., vol. 7, No. 2, p. 141, Jan. 12, 1911.

Type Locality.—Rocky Bay, now Bobs Bay, Dall Island, Alaska.

Euarctos americanus emmonsii (Dall) * (glacier bear)

1895. [*Ursus americanus*] var. *emmonsii* Dall, Science, new ser., vol. 2, p. 87, July 26, 1895.

1896. *Ursus emmonsi* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 82, Apr. 13, 1896.

1897. *Ursus glacilis* [sic] Kells, Canadian Nat. Sci. News, vol. 1, p. 12, April 1897. (Mt. Saint Elias, Alaska.)

1938. *Ursus a*[*mericanus*] *emmonsii* Cowan, Journ. Mamm., vol. 19, No. 2, p. 205, May 12, 1938.

Type Locality.—Saint Elias Alps, near Yakutat Bay, Alaska. *Range.*—Mainland of southern Alaska, south at least to Taku River, intergrading with *perniger* to northwest of Yakutat Bay (Hubrick's Camp, Chitina River, Alaska; Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 190, Jan. 24, 1947).

Euarctos americanus randi R. M. Anderson*

1945. *Euarctos randi* R. M. Anderson, Ann. Rep. Provancher Soc. Nat. Hist. Canada, Quebec, 1944, p. 19, Nov. 2, 1945.

1947. *E*[*uarctos*] *a*[*mericanus*] *randi* R. M. Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 190, Jan. 24, 1947.

Type Locality.—Sheldon Mountain, Canol Road, Mile 222, Yukon Territory, Canada; lat. about 62° 30′ N., long. 131° W. Altitude, about 4,000 feet. *Range.*—Central and southern Yukon from western slope of Mackenzie Mountains, north and west to Klondike region, Hootalinqua River, Nisutlin River, and Teslin Lake; southwest into British Columbia to head of Teslin Lake and Snowden Mountains southwest of Teslin Lake; probably occurs also in parts of southwestern Mackenzie district in Northwest Territories (Anderson, 1947, p. 38).

Euarctos americanus kermodei (Hornaday)

1905. *Ursus kermodei* Hornaday, Ann. Rep. New York. Zool. Soc., 1904, p. 82, January 1905. (For status, see Cowan, Canadian Field-Nat., vol. 50, p. 148, Dec. 3, 1936.)

1945. *Euarctos americanus kermodei* Anderson, Ann. Rep. Provancher Soc. Nat. Hist. Canada, Quebec, 1944, p. 28, Nov. 2, 1945. (Regarded by Cowan, Journ. Mamm., vol. 19, No. 2, p. 205, May 12, 1938, as not distinct from *emmonsii.*)

Type Locality.—Gribble Island, British Columbia, Canada. *Range.*—Coastal region of British Columbia from north of Nass River, south to South Bentinck Arm, inhabiting most of the larger islands (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 37, Jan. 24, 1947).

Euarctos americanus vancouveri (Hall) *

1928. *Ursus americanus vancouveri* Hall, Univ. California Publ. Zool., vol. 30, No. 10, p. 231, Mar. 2, 1928. (Regarded as a species by Anderson, Nat. Mus. Canada Bull. 102 (1946) p. 38, Jan. 24, 1947.)

Type Locality.—King Solomon's Basin, Vancouver Island, British Columbia, Canada. *Range.*—Restricted to Vancouver Island.

Euarctos americanus cinnamomum (Audubon and Bachman) *

1853. *Ursus americanus* var. *cinnamomum* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 3, p. 125, pl. 127.

1893. *Ursus cinnamomeus* Brown, Forest and Stream, vol. 41, p. 519, Dec. 16, 1893 (part).

1936. *Euarctos americanus cinnamomum* V. Bailey, North Amer. Fauna No. 55 (June), p. 319, Aug. 29, 1936.

Type Locality.—Lower Clearwater River, Camp Chopunnish, near mouth of Jim Ford Creek, Clearwater County, western Idaho (see V. Bailey, loc cit.). *Range.*—Northeastern Oregon, Blue Mountains in southeast as well as northeast Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 176, Apr. 9, 1948), Idaho; and northern Rocky Mountains from Yellowstone National Park, Wyo., to western Alberta (Waterton Lakes, Banff, and Jasper National Parks) and eastern British Columbia (Glacier National Park, Morissey, and Yoho National Park), intergrading with *altifrontalis* in the interior of southern British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 37, Jan. 24, 1947). Recorded also from mountains of central and northeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 408, Aug. 10, 1952).

Euarctos americanus altifrontalis (Elliot) *

1903. *Ursus altifrontalis* Elliot, Field Columb. Mus. Publ. 80, Zool. Ser., vol. 3, No. 13 (June), p. 234, Sept. 3, 1903.

1913. *Ursus americanus altifrontalis* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 284, Aug. 28, 1913.

1945. *Euarctos americanus altifrontalis* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1944, p. 27, Nov. 2, 1945.

Type Locality.—Lake Crescent, Olympic Mountains, Clallam County, Wash. *Range.*—From Sonoma and Tehama Counties in northwestern California through western Oregon, western Washington, along the southwestern coast of British Columbia north to Rivers Inlet and Bella Coola Region, and in the interior east to Yahk, and Glacier National Park, and north to Barkerville region (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 37, Jan. 24, 1947).

Euarctos americanus californiensis (J. Miller)*

1900. *Ursus californiensis* J. Miller, True bear stories, . . . , p. 250.

1929. *Ursus americanus californiensis* Grinnell, Univ. California Publ. Zool., vol. 32, No. 3, p. 396, July 19, 1929.

Type Locality.—Name originally applied to the "large black bear" of California and Washington (restricted to Sierra Nevada in California by Grinnell, loc. cit.). *Range.*—Sierra Nevada north from Tehachapi Mountains, Kern County, to Siskiyou County, Calif., and vicinity of Lake Tahoe in Nevada (see Grinnell, Dixon, and Linsdale, The fur-bearing Mammals of California, vol. 1, p. 95, Aug. 10, 1937).

Euarctos americanus amblyceps (Baird) †*

1859. *Ursus amblyceps* Baird, Mammals of the boundary, *in* Emory, Rep. United States and Mexican boundary survey, . . . , vol. 2, pt. 2, p. 29, January 1859.

1905. *Ursus americanus amblyceps* V. Bailey, North Amer. Fauna No. 25, p. 187, Oct. 24, 1905.

Type Locality.—Old copper mines near present town of Santa Rita, Grant County, N. Mex. (see V. Bailey, North Amer. Fauna No. 53 (1931) p. 357, Mar. 1, 1932). *Range.*—From eastern Arizona, New Mexico, northern Chihuahua, and southwestern Texas north through central Texas (Davis, Journ. Mamm., vol. 26, No. 4, p. 434, Feb. 12, 1946) to south-central Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, No. 1, p. 66, September 1944), and southeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 410, Aug 10, 1952).

Euarctos americanus machetes (Elliot)*

1903. *Ursus machetes* Elliot, Field Columb. Mus. Publ. 80, Zool. Ser., vol. 3, No. 13 (June), p. 235, Sept. 3, 1903.

1946. *Euarctos americanus machetes* Goldman and Moore, Journ. Mamm., vol. 26, No. 4 (November 1945), p. 353, Feb. 12, 1946.

Type Locality.—Casas Grandes, Sierra Madre, Chihuahua, México.

Euarctos americanus eremicus (Merriam) †*

1904. *Ursus americanus eremicus* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 154, Oct. 6, 1904.

Type Locality.—Sierra Guadalupe, Coahuila, México.

Euarctos hunteri R. M. Anderson*

1945. *Euarctos hunteri* R. M. Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1944, p. 22, Nov. 2, 1945.

Type Locality.—Near mouth of Prairie Creek, South Nahanni River, Mackenzie District, Northwest Territories, Canada; lat. about 61°30′ N., long. about 124°30′ W. *Range.*—Western part of Mackenzie District, probably the prevailing form of black bear from Liard River northward to near limit of trees north of Arctic Circle; westward into central and southern Yukon at least to Teslin Lake; Canol Road (Mile 139, Pelly River near junction with Ross River; Nisutlin River, 24 miles from Johnson Crossing); mountains back of Teslin Lake; probably also parts of extreme northern British Columbia north of Liard River and south of Teslin Lake (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 38, Jan. 24, 1947).

Euarctos carlottae (Osgood)†*

1901. *Ursus* (*Euarctos*) *carlottae* Osgood, North Amer. Fauna No. 21, p. 30, Sept. 26, 1901.

Type Locality.—Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Restricted to Queen Charlotte Islands.

Genus URSUS [82] Linnaeus

1758. *Ursus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 47. (Type, *Ursus arctos* Linnaeus.)

1825. *Danis* Gray, Ann. Philos., vol. 26, p. 60, July 1825. (Type, *Ursus ferox* Desmarest=*Ursus horribilis* Ord.)

1918. *Vetularctos* Merriam, North Amer. Fauna No. 41, p. 131, Feb. 9, 1918. (Type, *Vetularctos inopinatus* Merriam.)

horribilis—group

Ursus horribilis horribilis Ord*

1815. *Ursus horribilis* Ord, *in* [Guthrie], A new geographical, historical, and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, p. 291 (described on p. 299).

1884. *Ursus horribilis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884. (Part.)

Type Locality.—Missouri River, a little above mouth of Poplar River, northeastern Montana. *Range.*—Great Plains bordering Missouri River from western Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, No. 1, p. 67, September 1944) to Plains region of southwestern Manitoba, Saskatchewan, and Alberta in former times; now probably extinct (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 39, Jan. 24, 1947).

Ursus horribilis bairdi Merriam†*

1914. *Ursus bairdi* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 192, Aug. 13, 1914.

1918. *Ursus horribilis bairdi* Merriam, North Amer. Fauna No. 41, p. 19, Feb. 9, 1918.

Type Locality.—Blue River, Summit County, Colo. *Range.*—Southern Rocky Mountain region from San Juan Mountains, southwestern Colorado, northward through Wyoming to Montana, and perhaps to southeastern British Columbia. Probably a mountain animal, while its neighbor *horribilis* was a plains species.

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[82] Revised by Merriam, North. Amer. Fauna No. 41, Feb. 9, 1918.

Ursus horribilis dusorgus Merriam†*

1918. *Ursus dusorgus* Merriam, North Amer. Fauna No. 41, p. 33, Feb. 9, 1918.
1947. *Ursus horribilis dusorgus* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 39, Jan. 24, 1947.

Type Locality.—Head of Jackpine River, near Mount Bess, close to British Columbia boundary, Alberta, Canada. *Range.*—Rocky Mountain region of western Alberta and eastern British Columbia (Anderson, loc. cit.).

Ursus horribilis imperator Merriam†*

1914. *Ursus imperator* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 180, Aug. 13, 1914.
1918. *Ursus horribilis imperator* Merriam, North Amer. Fauna No. 41, p. 20, Feb. 9, 1918.

Type Locality.—Yellowstone National Park, Wyo. *Range.*—Yellowstone National Park; limits unknown. Recorded from Prairie Creek Valley, southwestern Alberta (see Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 40, Jan. 24, 1947).

Ursus chelidonias Merriam†*

1918. *Ursus chelidonias* Merriam, North Amer. Fauna No. 41, p. 21, Feb. 9, 1918.

Type Locality.—Head of Jervis Inlet, British Columbia, Canada. *Range.*—Unknown.

Ursus atnarko Merriam†*

1918. *Ursus atnarko* Merriam, North Amer. Fauna No. 41, p. 22, Feb. 9, 1918.

Type Locality.—Lonesome Lake, Atnarko River, one of the upper forks of the Bella Coola, British Columbia, Canada. *Range.*—Mountains inland from Bella Coola area.

Ursus kwakiutl Merriam†*

1916. *Ursus kwakiutl* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 143, Sept. 6, 1916.

Type Locality.—Jervis Inlet, coast of southern British Columbia, Canada. *Range.*—Coast region of British Columbia from southwestern corner (Burrard Inlet, Howe Sound, Jervis Inlet) northwesterly to or beyond the lower Bella Coola.

Ursus nortoni Merriam†*

1914. *Ursus nortoni* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 179, Aug. 13, 1914.

Type Locality.—Yakutat, Alaska. *Range.*—Limited apparently to coastal plain on southeastern side of Yakutat Bay.

Ursus warburtoni Merriam†*

1916. *Ursus kwakiutl warburtoni* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 145, Sept. 6, 1916.
1918. *Ursus warburtoni* Merriam, North Amer. Fauna No. 41, p. 27, Feb. 9, 1918.

Type Locality.—Atnarko River, British Columbia, Canada. *Range.*—Coast region (but perhaps not the immediate coast strip) of southeastern Alaska and adjacent parts of British Columbia from Chilkat River southeasterly to Atnarko

River, one of the upper forks of Bella Coola (skulls of adult males examined from Atnarko River, Stikine River, Iskut River near junction with Stikine, and Chilkat River Valley).

Ursus neglectus Merriam†*

1916. *Ursus kwakiutl neglectus* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 144, Sept. 6, 1916.

1918. *Ursus neglectus* Merriam, North Amer. Fauna No. 41, p. 28, Feb. 9, 1918.

Type Locality.—Near Hawk Inlet, Admiralty Island, southeastern Alaska.

Ursus californicus Merriam†*

1896. [*Ursus horribilis*] *californicus* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 76, Apr. 13, 1896.

1914. *Ursus californicus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 188, Aug. 13, 1914.

Type Locality.—Monterey, Monterey County, Calif. *Range.*—Humid coast region of California from San Francisco Bay south about to San Luis Obispo (apparently passing into *tularensis* in the dryer interior).

Ursus tularensis Merriam†*

1914. *Ursus californicus tularensis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 188, Aug. 13, 1914.

1918. *Ursus tularensis* Merriam, North Amer. Fauna No. 41, p. 30, Feb. 9, 1918.

Type Locality.—Fort Tejon, Cañada de las Uvas, Tehachapi Mountains, Kern County, Calif. *Range.*—Dry chaparral hills of interior Coast Ranges between San Joaquin Valley and Los Angeles Plain, comprising Tehachapi, Tejon, Sierra Madre, and San Gabriel Ranges, and probably San Bernardino Mountains also, and ranging northward an unknown distance, doubtless covering San Rafael and Gabilan Ranges, and southern part of Diablo Range; limits unknown.

Ursus colusus Merriam†*

1914. *Ursus colusus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 187, Aug. 13, 1914.

Type Locality.—Sacramento River, probably between Colusa and Sacramento, Calif. *Range.*—Sacramento (and perhaps also San Joaquin) Valley and adjacent foothills; westerly in hot inner coast mountains to Dobbins Creek canyon on boundary between southeastern Humboldt and southwestern Trinity Counties.

planiceps—group

Ursus nelsoni Merriam†*

1914. *Ursus nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 190, Aug. 13, 1914.

Type Locality.—Colonia García, Chihuahua, México. *Range.*—Southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 361, Mar. 1, 1932) and Sierra Madre of México from northwestern Chihuahua and northeastern Sonora south to southern Durango.

Ursus texensis texensis Merriam†*

1914. *Ursus horriaeus texensis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 191, Aug. 13, 1914.

1918. *Ursus texensis texensis* Merriam, North Amer. Fauna No. 41, p. 35, Feb. 9, 1918.

Type Locality.—Davis Mountains, Jeff Davis County, Tex. *Range.*—From Davis Mountains, Tex., through Guadalupe, Sacramento, White, Capitan, Manzano, and possibly Jemez Mountains in New Mexico to southwestern Colorado (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 362, March 1, 1932).

Ursus texensis navaho Merriam†*

1914. *Ursus navaho* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 191, Aug. 13, 1914.

1918. *Ursus texensis navaho* Merriam, North Amer. Fauna No. 41, p. 37, Feb. 9, 1918.

Type Locality.—Navajo country near Fort Defiance, Apache County, Ariz. (Mollhausen); type probably killed in 1856 in Chuska Mountains, on boundary between northeastern Arizona and northwestern New Mexico. *Range.*—Probably restricted to isolated Chuska Mountains (including so-called Lukachukai and Tunitcha elevations, and perhaps also neighboring Carrizo Mountains on the north). Recorded from Navajo Mountain, near Chromo, Archuleta County, Colo. (Warren, The mammals of Colorado, . . . , p. 38, 1942).

Ursus planiceps Merriam†*

1918. *Ursus planiceps* Merriam, North Amer. Fauna No. 41, p. 37, Feb. 9, 1918.

Type Locality.—Colorado, exact locality unknown, but probably in the foothills or on the western edge of the plains. *Range.*—Recorded from Middle Creek, Mineral County, Colo. (Warren, The mammals of Colorado, . . . , p. 38, 1942).

Ursus macrodon Merriam†*

1918. *Ursus macrodon* Merriam, North Amer. Fauna No. 41, p. 38, Feb. 9, 1918.

Type Locality.—Twin Lakes, Lake County, Colo. *Range.*—Recorded from South Branch of Williams River, Routt County, Colo. (Warren, The mammals of Colorado, . . . , p. 38, 1942).

Ursus mirus Merriam†*

1918. *Ursus mirus* Merriam, North Amer. Fauna No. 41, p. 40, Feb. 9, 1918.

Type Locality.—Slough Creek, Yellowstone National Park, Wyo. *Range.*—From lower levels of Yellowstone National Park down Snake River Valley over southern Idaho to lava bed region of southeastern Oregon (V. Bailey, North Amer. Fauna No. 55, p. 329, Aug. 29, 1936).

Ursus eltonclarki Merriam†*

1914. *Ursus eltonclarki* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 175, Aug. 13, 1914.

Type Locality.—Freshwater Bay, Chichagof Island, Alaska. *Range.*—The Sitka Islands, Baranof and Chichagof.

Ursus tahltanicus Merriam†*

1914. *Ursus tahltanicus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 181, Aug. 13, 1914.

Type Locality.—Klappan Creek (third south fork of Stikine River), British Columbia, Canada. *Range.*—Middle and upper Stikine-Skeena region, limits uncertain.

Ursus insularis Merriam†*

1916. *Ursus eltonclarki insularis* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 141, Sept. 6, 1916.

1918. *Ursus insularis* Merriam, North Amer. Fauna No. 41, p. 44, Feb. 9, 1918.

Type Locality.—Admiralty Island, southeastern Alaska.

Ursus orgilos Merriam†*

1914. *Ursus orgilos* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 176, Aug. 13, 1914.

Type Locality.—Bartlett Bay, east side of Glacier Bay, southeastern Alaska.

Ursus orgiloides Merriam†*

1918. *Ursus orgiloides* Merriam, North Amer. Fauna No. 41, p. 46, Feb. 9, 1918.

Type Locality.—Italio River, Alaska. *Range.*—Coast strip southeast of Yakutat Bay. Specimens have been received from near Yakutat village and from Ankow and Anklin Rivers and mouths of Alsek and Italio Rivers.

Ursus pallasi Merriam†*

1916. *Ursus pallasi* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 149, Sept. 6, 1916.

Type Locality.—Donjek River, southwestern Yukon, Canada. *Range.*—Central and eastern Yukon, from Donjek River and upper Alsek River (Champagne Landing), east to McConnell River, Ross River (Canol Road, Mile 132, Lapie River, a little below junction of Ross and Pelly Rivers, Ross Mountains), and southern part of Mackenzie Mountains (Ida Lake, Yukon, altitude about 4,000 feet, about 60 miles west of Glacier Lake, Northwest Territories), and north to Richardson Mountains (about 25 miles southwest of Aklavik), Mackenzie District (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 42, Jan. 24, 1947).

Ursus canadensis canadensis Merriam†*

1914. *Ursus shoshone canadensis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 184, Aug. 13, 1914.

1916. *Ursus ophrus* Merriam†, Proc. Biol. Soc. Washington, vol. 29, p. 148, Sept. 6, 1916. (Eastern British Columbia, Canada; exact locality unknown).

1918. *Ursus canadensis* Merriam, North Amer. Fauna No. 41, p. 52, Feb. 9, 1918.

1947. *Ursus canadensis canadensis* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 41, Jan. 24, 1947.

Type Locality.—Moose Pass, near Mount Robson, British Columbia, Canada. *Range.*—Probably formerly in northeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 177, Apr. 9, 1948); and southeastern British

Columbia from Mount Robson (Moose Pass and Sheep Creek) to Kootenay Lake, and Rocky Mountains of western Alberta in Jasper National Park and Banff National Park (Panther River); limits of range not known (Anderson, loc. cit.).

Ursus canadensis rungiusi Merriam†*

1918. *Ursus rungiusi rungiusi* Merriam, North Amer. Fauna No. 41, p. 49, Feb. 9, 1918.

1947. *Ursus canadensis rungiusi* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 41, Jan. 24, 1947.

Type Locality.—Rocky Mountains on headwaters of Athabaska River, Alberta, Canada. *Range.*—Southwestern Alberta (Waterton Lakes National Park) and Kootenay Pass (Alberta–British Columbia boundary); limits of range in British Columbia not known (Anderson, loc. cit.; see also Hall, Univ. California Publ. Zool., vol. 40, No. 9, p. 366, Nov. 5, 1934).

Ursus canadensis sagittalis Merriam†*

1918. *Ursus rungiusi sagittalis* Merriam, North Amer. Fauna No. 41, p. 50, Feb. 9, 1918.

1947. *Ursus canadensis sagittalis* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 41, Jan. 24, 1947.

Type Locality.—Champagne Landing, southwestern Yukon, Canada. *Range.*—Apparently known from type locality only.

Ursus macfarlani Merriam†*

1918. *Ursus macfarlani* Merriam, North Amer. Fauna No. 41, p. 51, Feb. 9, 1918.

Type Locality.—On Anderson River, 50 miles below Fort Anderson, Mackenzie District, Northwest Territories, Canada. *Range.*—Arctic coastal region of Mackenzie District from Coronation Gulf (Kogaryuak and Rae Rivers), to Dolphin and Union Strait (Stapylton Bay), Franklin Bay, Anderson River, and eastern parts of Mackenzie River delta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 41, Jan. 24, 1947).

arizonae–group

Ursus arizonae Merriam†*

1916. *Ursus arizonae* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 135, Sept. 6, 1916.

Type Locality.—East side of Escudilla Mountains, Apache County, Ariz. *Range.*—Eastern Arizona and probably Mimbres and Mogollon Mountains of southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53, pp. 359–360, Mar. 1, 1932).

Ursus idahoensis Merriam†*

1918. *Ursus idahoensis* Merriam, North Amer. Fauna No. 41, p. 54, Feb. 9, 1918.

Type Locality.—North Fork Teton River, Fremont County, Idaho. *Range.*—Northeastern Oregon (V. Bailey, North Amer. Fauna No. 55, p. 328, Aug. 29, 1936), Blue Mountains of southeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 177, Apr. 9, 1948), and Idaho (Davis, The Recent mammals of Idaho, p. 127, Apr. 5, 1939).

Ursus pulchellus pulchellus Merriam†*

1918. *Ursus pulchellus pulchellus* Merriam, North Amer. Fauna No. 41, p. 55, Feb. 9, 1918.

Type Locality.—Ross River, Yukon, Canada. *Range.*—Central and southern Yukon, from Donjek River and upper Alsek River (Champagne Landing) east to McConnell River, Ross River (Canol Road, Mile 132, Lapie River, a little below junction of Ross and Pelly Rivers), and Ross Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 42, Jan. 24, 1947).

Ursus pulchellus ereunetes Merriam†*

1918. *Ursus pulchellus ereunetes* Merriam, North Amer. Fauna No. 14, p. 56, Feb. 9, 1918.

Type Locality.—Beaverfoot Range, Kootenay District, British Columbia, Canada. *Range.*—Apparently known from type locality only.

Ursus oribasus Merriam†*

1918. *Ursus oribasus* Merriam, North Amer. Fauna No. 41, p. 56, Feb. 9, 1918.

Type Locality.—Upper Liard River, Yukon, Canada, near British Columbia boundary. *Range.*—Apparently known from type locality only.

Ursus chelan Merriam†*

1916. *Ursus chelan* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 136, Sept. 6, 1916.

Type Locality.—T. 30 N., R. 16 E., Willamette meridian, Wenatchee National Forest, east slope of Cascade Mountains, northern Chelan County, Wash. *Range.*—Cascade and Cassiar Mountains from northern Washington to upper Stikine River and Dease Lake, British Columbia.

Ursus shoshone Merriam†*

1914. *Ursus shoshone* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 184, Aug. 13, 1914.

Type Locality.—Estes Park, Larimer County, Colo. *Range.*—Mountains of Colorado and Wyoming.

Ursus kennerleyi Merriam†*

1914. *Ursus kennerleyi* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 194, Aug. 13, 1914.

Type Locality.—Mountains near Los Nogales, Sonora, México. *Range.*—Nothing is known of the range of *kennerleyi* except that the type specimen came from mountains near Nogales, Sonora.

Ursus utahensis Merriam†*

1914. *Ursus utahensis Merriam,* Proc. Biol. Soc. Washington, vol. 27, p. 193, Aug. 13, 1914.

Type Locality.—North fork of Salina Creek, about 10 miles southeast of Mayfield, Sanpete County, Utah. *Range.*—Southern Wasatch and Pine Valley Mountains; limits unknown.

Ursus perturbans Merriam†*

1918. *Ursus perturbans* Merriam, North Amer. Fauna No. 41, p. 64, Feb. 9, 1918.

Type Locality.—Canyon on Mount Taylor, 12 miles east of San Mateo, Valencia County, N. Mex. *Range.*—Presumably region lying between Mount Taylor and Datil Ranges, including Zuni Mountains (V. Bailey, North Amer. Fauna No. 53, p. 364, Mar. 1, 1932).

Ursus rogersi rogersi Merriam†*

1918. *Ursus rogersi rogersi* Merriam, North Amer. Fauna No. 41, p. 65, Feb. 9, 1918.

Type Locality.—High up on Greybull River, Absaroka Mountains, Yellowstone National Park, Wyo.

Ursus rogersi bisonophagus Merriam†*

1918. *Ursus rogersi bisonophagus* Merriam, North Amer. Fauna No. 41, p. 66, Feb. 9, 1918.

Type Locality.—Bear Lodge, Sundance National Forest, Black Hills, Crook County, Wyo. *Range.*—Black Hills of South Dakota and adjacent northeast corner of Wyoming.

Ursus pervagor Merriam†*

1914. *Ursus pervagor* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 186, Aug. 13, 1914.

Type Locality.—Pemberton [now Lillooet] Lake on edge of humid coast strip, British Columbia, Canada. *Range.*—Interior of southwestern British Columbia; known only from Lillooet Lake and Bridge River.

Ursus caurinus Merriam†*

1914. *Ursus caurinus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 187, Aug. 13, 1914.

Type Locality.—Berners Bay, east side of Lynn Canal, southeastern Alaska. *Range.*—Coast of mainland of southeastern Alaska from Chilkat River Valley and Lynn Canal south an unknown distance.

Ursus eulophus Merriam†*

1904. *Ursus eulophus* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 153, Oct. 6, 1904.

Type Locality.—Admiralty Island, Alaska. *Range.*—Admiralty Island.

Ursus klamathensis Merriam†*

1914. *Ursus klamathensis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 185, Aug. 13, 1914.

Type Locality.—Beswick, near mouth of Shovel Creek, Klamath River, Siskiyou County, Calif. *Range.*—Siskiyou Mountains of northern California and southern Oregon, ranging north in recent times to Fort Klamath region and Rogue River Valley; in early days to lower Willamette Valley (presumably same species); south in Sierra Nevada an unknown distance. (Skull from lower McCloud River referred to this species.)

Ursus mendocinensis Merriam†*

1916. *Ursus mendocinensis* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 145, Sept. 6, 1916.

Type Locality.—Long Valley [north of Sherwood], Mendocino County, Calif. *Range.*—Unknown; probably northwest coast belt of California.

Ursus magister Merriam†*

1914. *Ursus magister* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 189, Aug. 13, 1914.

Type Locality.—Los Biacitos, head of San Onofre Canyon, Santa Ana Mountains, San Diego County, Calif. *Range.*—Santa Ana or Trabuco Mountains, Cuyamaca and Santa Rosa Mountains, and probably San Jacinto Mountains. Believed to be extinct.

hylodromus—group

Ursus hylodromus Elliot*

1904. *Ursus hylodromus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 257, Jan. 7, 1904.

1916. *Ursus selkirki* Merriam†, Proc. Biol. Soc. Washington, vol. 29, p. 150, Sept. 6, 1916. (Selkirk Mountains, Upper Columbia River, British Columbia, Canada.)

Type Locality.—Alberta, Canada. *Range.*—Rocky Mountain region of western Alberta and eastern British Columbia, including Selkirk Range.

Ursus kluane kluane Merriam†*

1916. *Ursus kluane* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 141, Sept. 6, 1916.

Type Locality.—McConnell River, Yukon, Canada. *Range.*—Southwest corner of Yukon Territory east of St. Elias Range, extending northwesterly in Alaska to Mount McKinley region (head of Toklat River), easterly in Yukon Territory to McConnell River (north-northeast of Teslin Lake) and probably south into northwest corner of British Columbia.

Ursus kluane impiger Merriam†*

1918. *Ursus kluane impiger* Merriam, North Amer. Fauna No. 41, p. 81, Feb. 9, 1918.

Type Locality.—Columbia Valley, British Columbia, Canada. *Range.*—Western Montana (near Fort Blackfoot), western Alberta (Morley, Jasper), and southeastern British Columbia at Brisco, Columbia Valley (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 43, Jan. 24, 1947).

Ursus pellyensis Merriam†*

1918. *Ursus pellyensis* Merriam, North Amer. Fauna No. 41, p. 82, Feb. 9, 1918.

Type Locality.—Ketza Divide, Pelly Mountains, Yukon, Canada. *Range.*—Pelly and Ross Mountains, northwest to Dawson region, Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 44, Jan. 24, 1947).

Ursus andersoni Merriam

1918. *Ursus andersoni* Merriam, North Amer. Fauna No. 41, p. 83, Feb. 9, 1918.

Type Locality.—East branch of Dease River, near Great Bear Lake, Mackenzie District, Northwest Territories, Canada. *Range.*—Not known to occur immediately on Arctic coast, but ranges on Barren Grounds along northern edge of Hudsonian Zone from Eskimo Lakes east and southeast to east end of Great Bear Lake (Dease River), Aylmer Lake, and probably from upper waters of Back, Dubawnt, Kazan, and Thelon Rivers on borders of Mackenzie and Keewatin Districts (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 43, Jan. 24, 1947).

horriaeus—group

Ursus apache Merriam†*

1916. *Ursus apache* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 134, Sept. 6, 1916.

Type Locality.—Whorton Creek, on south slope of White Mountains, a few miles west of Blue, Greenlee County, Ariz. *Range.*—From White Mountains, Ariz., to Sangre de Cristo in northern New Mexico (see V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 366, Mar. 1, 1932).

Ursus horriaeus Baird†*

1858. *U[rsus] horribilis* var. *horriaeus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 224, July 14, 1858.

1896. *Ursus horribilis horriaeus* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 75, Apr. 13, 1896.

1914. *[Ursus] horriaeus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 191, Aug. 13, 1914.

Type Locality.—Old copper mines near present town of Santa Rita, Grant County, N. Mex. (see V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 357, Mar. 1, 1932). *Range.*—Presumably foothill and valley country around Mogollon Mountains to Rio Grande Valley of southern New Mexico (V. Bailey, loc. cit.), south to Casas Grandes, Chihuahua, México; probably extending into eastern Arizona.

Ursus henshawi Merriam†*

1914. *Ursus henshawi* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 190, Aug. 13, 1914.

Type Locality.—Southern Sierra Nevada, near Havilah, Kern County, Calif. *Range.*—Lower slopes of southern part of Sierra Nevada; limits unknown.

stikeenensis—group

Ursus stikeenensis Merriam†*

1914. *Ursus stikeenensis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 178, Aug. 13, 1914.

Type Locality.—Tatletuey [Tatlatui] Lake, near head of Skeena River, northern British Columbia, Canada. *Range.*—Omineca district near headwaters of Skeena River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 44, Jan. 24, 1947), head of Finlay River, and Dease Lake region, northern British Columbia, and northerly in Yukon.

Ursus crassodon Merriam†*

1918. *Ursus crassodon* Merriam, North Amer. Fauna No. 41, p. 90, Feb. 9, 1918.

Type Locality.—Klappan Creek (third south fork, Stikine River), British Columbia, Canada. *Range.*—Omineca district near headwaters of Skeena River, head of Teslin Lake, and Tatlatui River in northern British Columbia; Glenlyon Mountains, Quiet Lake at head of Big Salmon River, White River, and Wolf

Lake northeast of Teslin Lake in Yukon; and Canol Road, Mile 124 East, on eastern slope of Mackenzie Mountains, in Mackenzie District, Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 44, Jan. 24, 1947).

Ursus crassus Merriam†*

1918. *Ursus crassus* Merriam, North Amer. Fauna No. 41, p. 90, Feb. 9, 1918.

Type Locality.—Upper Macmillan River, Yukon, Canada. *Range.*—Eastern Yukon (upper Macmillan River) to northern Mackenzie District (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 44, Jan. 24, 1947).

Ursus mirabilis Merriam†*

1916. *Ursus mirabilis* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 146, Sept. 6, 1916.

Type Locality.—Admiralty Island, Alaska.

Ursus absarokus Merriam†*

1914. *Ursus absarokus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 181, Aug. 13, 1914.

Type Locality.—Head of Little Bighorn River, northern part of Bighorn Mountains, Carbon County, Mont. *Range.*—Laramie and Bighorn Mountains, eastern Wyoming, Black Hills region, South Dakota, and northward along Little Missouri to Missouri and Yellowstone Rivers.

alascensis—group

Ursus alascensis Merriam†*

1896. *Ursus horribilis alascensis* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 74, Apr. 13, 1896.

1918. *Ursus alascensis* Merriam, North Amer. Fauna No. 41, p. 94, Feb. 9, 1918.

Type Locality.—Unalaklik River, Alaska. *Range.*—Norton Sound region, Alaska (Unalaklik and Shaktolik Hills), southerly over Nushagak and Kuskokwim Rivers to Chinitna on Cook Inlet. Limits unknown.

Ursus toklat Merriam†*

1914. *Ursus toklat* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 182, Aug. 13, 1914.

Type Locality.—Head of Toklat River, north base of Alaska Range, near Mount McKinley, Alaska. *Range.*—So far as known, restricted to Alaska Range.

Ursus latifrons Merriam†*

1914. *Ursus phaeonyx latifrons* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 183, Aug. 13, 1914.

1918. *Ursus latifrons* Merriam, North Amer. Fauna No. 41, p. 97, Feb. 9, 1918.

Type Locality.—Jasper House, Alberta, Canada. *Range.*—Rocky Mountains of western Alberta and eastern British Columbia from Banff National Park (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 44, Jan. 24, 1947), northwesterly to region between headwaters of Parsnip River and Great Bend of Fraser River and thence to extreme headwaters of Stikine River; limits of range unknown.

richardsoni—group

Ursus richardsoni Swainson*

1838. *Ursus richardsoni* Swainson, Animals in menageries (*in* Lardner's Cabinet Cyclopaedia), p. 54.

1884. *Ursus richardsoni* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

Type Locality.—Near first cascade, about 8 miles from mouth of Hood River, Arctic Sound, on west side of Bathurst Inlet, southeast of Coronation Gulf, Mackenzie District, Northwest Territories, Canada. *Range.*—Along Arctic coast from Kent Peninsula on coast and islands of Bathurst Inlet (Baillie's Cove at south end of Arctic sound, a few miles from type locality); south side of Coronation Gulf (Kogaryuak River, Coppermine River); Dolphin and Union Strait (Bernard Harbour, Wise Point); Franklin Bay (Langton Bay), lower Anderson River, and west to Tuktuyaktok on northeast side of Mackenzie delta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 45, Jan. 24, 1947).

Ursus internationalis internationalis Merriam*

1914. *Ursus internationalis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 177, Aug. 13, 1914.

Type Locality.—Alaska-Yukon boundary (long. 141° W.), about 50 miles south of the Arctic coast. *Range.*—Region near Arctic coast along Alaska-Yukon boundary, east to western side of Mackenzie delta in Northwest Territories; undoubtedly occurs in northeastern Alaska (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 45, Jan. 24, 1947).

Ursus internationalis russelli Merriam

1914. *Ursus russelli* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 178, Aug. 13, 1914.

1945. *Ursus internationalis russelli* Anderson *in* Porsild, Canadian Field-Nat., vol. 59, No. 1, (January-February), p. 8, Aug. 16, 1945.

Type Locality.—West branch of Mackenzie River delta (Aklavik Branch), south of northern limit of spruce, a little below Black Mountain, Richardson Mountains, Mackenzie District, Northwest Territories, Canada. *Range.*—Outer part of Mackenzie delta region as far east as Richards Island and west side of delta in foothills of Richardson Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 46, Jan. 24, 1947).

Ursus phaeonyx Merriam†*

1904. *Ursus horribilis phaeonyx* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 154, Oct. 6, 1904.

1914. [*Ursus*] *phaeonyx* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 183, Aug. 13, 1914.

Type Locality.—Glacier Mountain, Tanana Mountains, Alaska (about 2 miles below source of Comet Creek, near Fortymile Creek, between Yukon and Tanana Rivers). *Range.*—Tanana Mountains between Tanana and Yukon Rivers.

Ursus washake Merriam†*

1916. *Ursus washake* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 152, Sept. 6, 1916.

Type Locality.—North fork of Shoshone River, Absaroka Mountains, between Bighorn Basin and Yellowstone National Park, Wyo.

kidderi—group

Ursus kidderi kidderi Merriam†*

1902. *Ursus kidderi* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 78, Mar. 22, 1902.

Type Locality.—Chinitna Bay, Cook Inlet, Alaska. *Range.*—Entire length of Alaska Peninsula.

Ursus kidderi tundrensis Merriam†*

1914. *Ursus kidderi tundrensis* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 196, Aug. 13, 1914.

Type Locality.—Shaktolik River, Norton Sound, Alaska. *Range.*—Tundra region of northwestern Alaska from Shaktolik River on Norton Sound, southerly across lower Yukon, Kuskokwim, and Nushagak Rivers to Bristol Bay and north side of base of Alaska Peninsula.

Ursus eximius Merriam†*

1916. *Ursus eximius* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 139, Sept. 6, 1916.

Type Locality.—Head of Knik Arm, Cook Inlet, Alaska.

innuitus—group

Ursus innuitus Merriam†*

1914. *Ursus innuitus* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 177, Aug. 13, 1914.

Type Locality.—Golofnin Bay, south side of Seward Peninsula, western Alaska. *Range.*—Coastal region of Norton Sound, Alaska, from Unalaklik northward and westward; limits unknown.

Ursus cressonus Merriam†*

1916. *Ursus cressonus* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 137, Sept. 6, 1916.

Type Locality.—Lakina River, south slope of Wrangell Range, Alaska. *Range.*—Chitina River Valley and adjacent slopes of Skolai and Wrangell Mountains, westerly doubtless through Chugach Mountains to west side of Cook Inlet; occurs as far south as Iliamna region; east to southwestern Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 46, Jan. 24, 1947).

Ursus holzworthi Merriam†*

1929. *Ursus holzworthi* Merriam, Proc. Biol. Soc. Washington, vol. 42, p. 173, June 15, 1929.

Type Locality.—East slope of Talkeetna Mountains, near headwaters of Oshetna or Black River, Alaska. *Range.*—Known only from the type locality, nearly due north of Matanuska region and about 50 miles north-northeast of Chickaloon.

Ursus alexandrae Merriam*

1914. *Ursus alexandrae* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 174, Aug. 13, 1914.

Type Locality.—Kasilof Lake, Kenai Peninsula, Alaska. *Range.*—Kenai Peninsula.

townsendi—group

Ursus townsendi Merriam†*

1916. *Ursus townsendi* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 151, Sept. 6, 1916.

Type Locality.—Mainland of southeastern Alaska, probably between Cross Sound and Alsek River delta, but exact locality uncertain.

dalli—group

Ursus dalli Merriam†*

1896. *Ursus dalli* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 71, Apr. 13, 1896.

Type Locality.—Yakutat Bay (northwest side), Alaska. *Range.*—Malaspina Glacier and region northwest of Yakutat Bay.

Ursus hoots Merriam†*

1916. *Ursus hoots* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 140, Sept. 6, 1916.

Type Locality.—Clearwater Creek, a north branch of the Stikine River, British Columbia, Canada. *Range.*—Apparently known only from Stikine River and its northern branches.

Ursus sitkensis Merriam†*

1896. *Ursus sitkensis* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 73, Apr. 13, 1896.

Type Locality.—Near Sitka, Alaska. *Range.*—Sitka Islands (Baranof and Chicagof), Alaska.

Ursus shirasi Merriam†*

1914. *Ursus shirasi* Merriam, Proc. Biol. Soc. Washington, vol. 27, p. 195, Aug. 13, 1914.

Type Locality.—Pybus Bay, Admiralty Island, southeastern Alaska. *Range.*—Restricted to Admiralty Island.

Ursus nuchek Merriam†*

1916. *Ursus nuchek* Merriam, Proc. Biol. Soc. Washington, vol. 29, p. 146, Sept. 6, 1916.

Type Locality.—Head of Nuchek Bay, Hinchinbrook Island, Prince William Sound, Alaska. *Range.*—Prince William Sound easterly to Mount St. Elias; limits unknown.

gyas—group

Ursus gyas Merriam†*

1902. *Ursus dalli gyas* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 78, Mar. 22, 1902.

1902. *Ursus merriami* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 141, Apr. 12, 1902. (Portage Bay, opposite Port Muller, Alaska Peninsula, Alaska.)

1918. *Ursus gyas* Merriam, North Amer. Fauna No. 41, p. 124, Feb. 9, 1918.

Type Locality.—Pavlof Bay, Alaska Peninsula, Alaska. *Range.*—Entire length of Alaska Peninsula from Cook Inlet to Isanotski Strait and adjacent Unimak Island.

Ursus middendorffi Merriam†*

1896. *Ursus middendorffi* Merriam, Proc. Biol. Soc. Washington, vol. 10, p. 69, Apr. 13, 1896.

1911. *Ursus kadiaki* Kleinschmidt, Outdoor Life, vol. 27, p. 3, January 1911.

Type Locality.—Kodiak Island, Alaska. *Range.*—Kodiak and adjacent islands, Afognak and Shuyak; not known from mainland.

arctos—group

Ursus arctos beringianus Middendorff*

1853. *Ur[sus] arctos* var. *beringiana* Middendorff, Reise in den äussersten Norden und Osten Sibiriens . . ., vol. 2, pt. 2, pl. 1, figs. 1–6.

1855. *Ursus piscator* Pucheran, Rev. Mag. Zool., Paris, ser. 2, vol. 7, p. 392, August 1855. (Petropaulovski, southern Kamtchatka.)

1924. *U[rsus] a[rctos] kolymensis* Ognev, Priroda i Okhota na Ukraine (Nature and Sport in Ukraine), Kharkov, vol. 1, pt. 2, p. 112. (Saborzevo, Kolyma River, northwest of Sea of Okhotsk, Anadirsk district, Siberia, U.S.S.R.)

1951. *Ursus arctos beringianus* Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian Mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 238, Nov. 19, 1951.

Type Locality.—Great Shantar Island, Sea of Okhotsk. *Range.*—Recorded from St. Lawrence Island, Bering Sea, Alaska (A. H. Howell, Journ. Mamm., vol. 21, No. 2, p. 216, May 13, 1941).

kenaiensis—group

Ursus kenaiensis Merriam†*

1904. *Ursus kenaiensis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 154, Oct. 6, 1904.

Type Locality.—Cape Elizabeth, extreme west end of Kenai Peninsula, Alaska. *Range.*—Kenai Peninsula.

Ursus sheldoni Merriam†*

1910. *Ursus sheldoni* Merriam, Proc. Biol. Soc. Washington, vol. 23, p. 127, Sept. 2, 1910.

Type Locality.—Montague Island, Prince William Sound, Alaska.

inopinatus—group

Ursus inopinatus (Merriam)†*

1918. *Vetularctos inopinatus* Merriam, North Amer. Fauna No. 41, p. 132, Feb. 9, 1918.

Type Locality.—Rendezvous Lake (about lat. 69° N., long. 126° W., near northern limit of trees between middle parts of Anderson River and Horton River), northeast of old Fort Anderson, Mackenzie District, Northwest Territories, Canada. *Range.*—Southern edge of Barren Grounds from Anderson River to region northeast of Great Slave Lake (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 46, Jan. 24, 1947).

Genus THALARCTOS[83] Gray (polar bears)

1825. *Thalarctos* Gray, Ann. Philos., new ser., vol. 10, p. 62, July 1825. (Type, *Thalarctos polaris* Gray=*Ursus maritimus* Phipps.)

Thalarctos maritimus maritimus (Phipps) *

1774. *Ursus maritimus* Phipps, A voyage toward the North Pole . . . , p. 185.

1862. *Thalarctos maritimus* Gray, Catalogue of the Bones of Mammalia in the . . . British Museum, p. 105.

1908. *? Thalassarctos jenaensis* Knottnerus-Meyer, Sitzb. Ges. naturf. Freunde, Berlin, p. 184, July 1908. (Jena Island, Spitzbergen.)

1908. *? Th[alassarctos] spitzbergensis* Knottnerus-Meyer, Sitzb. Ges. naturf. Freunde, Berlin, p. 184, July 1908. (Seven Islands, Spitzbergen.)

Type Locality.—Spitzbergen. *Range.*—From Greenland, Ellesmere Island, Devon Island, Baffin Island, and other islands of eastern Canadian Arctic Archipelago, as far west as Victoria Strait; south to Hudson Bay and James Bay at least to Twin Islands (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 47, Jan. 24, 1947).

Thalarctos maritimus ungavensis (Knottnerus-Meyer) *

1884. *Thalassarctos maritimus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884. (Part).

1908. [*Thalassarctos maritimus*] var. *ungavensis* Knottnerus-Meyer, Sitzb. Ges. naturf. Freunde, Berlin, p. 181, July 1908. (Regarded as identical with *maritimus* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 47, Jan. 24, 1947.)

1912. *Thalarctos maritimus ungavensis* Miller, U. S. Nat. Mus. Bull. 79, p. 77, Dec. 31, 1912.

Type Locality.—Near Killinek, Ungava Bay, Canada.

Thalarctos maritimus groenlandicus (Birula) *

1932. *Thalassarctos maritimus groenlandicus* Birula, Trav. Inst. Zool. Acad. Sci. U.S.S.R., vol. 1, pp. 11, 132.

Type Locality.—Western Greenland.

Thalarctos eogroenlandicus (Knottnerus-Meyer) *

1908. *Thalassarctos eogroenlandicus* Knottnerus-Meyer, Sitzb. Ges. naturf. Freunde, Berlin, p. 182, July 1908. (Regarded as identical with *maritimus* by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 47, Jan. 24, 1947.)

1912. *Thalarctos eogroenlandicus* Miller, U. S. Nat. Mus. Bull. 79, p. 77, Dec. 31, 1912.

Type Locality.—Pack ice off coast of eastern Greenland.

Thalarctos labradorensis (Knottnerus-Meyer) *

1908. *Th[alassarctos] labradorensis* Knottnerus-Meyer, Sitzb. Ges. naturf. Freunde, Berlin, p. 183, July 1908.

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[83] Revised by Knottnerus-Meyer, Sitzb. Ges. naturf. Freunde, Berlin, 1908, pp. 170–187, July 1908.

1912. *Thalarctos labradorensis* Miller, U. S. Nat. Mus. Bull 79, p. 77, Dec. 31, 1912.

Type Locality.—Okkak, Labrador, Canada. *Range.*—Following Labrador current from southern extremity of Greenland, along Labrador coast to Newfoundland (Knottnerus-Meyer, loc. cit.).

Family PROCYONIDAE [84]

Subfamily PROCYONINAE

Genus BASSARISCUS [85] Coues (cacomistles)

1887. *Bassariscus* Coues, Science, vol. 9, p. 516, May 27, 1887. (Type, *Bassaris astuta* Lichtenstein.)

Bassariscus astutus astutus (Lichtenstein) *

1830. *B[assaris] astuta* Lichtenstein, Abhandl. Preuss. Akad. Wiss. Berlin, 1827, p. 119, 1830.

1884. *Bassaris astuta* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

1887. *Bassariscus astutus* Coues, Science, vol. 9, p. 516, May 27, 1887.

1904. *Bassariscus albipes* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 258, Jan. 7, 1904. (Xico, near Jalapa, Veracruz,, México. See Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 486, Oct. 19, 1932.)

Type Locality.—Near city of México, México (see Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 486, Oct. 19, 1932). *Range.*—High plateau of central México.

Bassariscus astutus bolei Goldman

1945. *Bassariscus astutus bolei* Goldman, Proc. Biol. Soc. Washington, vol. 58, p. 105, July 18, 1945.

Type Locality.—Chilpancingo, Guerrero, México. *Range.*—Known only from the type locality on slope of Sierra Madre del Sur of Guerrero, México.

Bassariscus astutus consitus Nelson and Goldman†*

1932. *Bassariscus astutus consitus* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 497, Oct. 19, 1932.

Type Locality.—La Salada, 40 miles south of Uruapan, Michoacán, México. *Range.*—Central Michoacán and Jalisco, and northward through the Sierra Nevada to southern Sinaloa; and west-central Chihuahua (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 297, Aug. 14, 1942), passing farther north into *arizonensis.*

Bassariscus astutus flavus Rhoads*

1894. *Bassariscus astutus flavus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 45, 1893, p. 417, Jan. 30, 1894.

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[84] Genera revised by Hollister, Proc. U. S. Nat. Mus., vol. 49, pp. 143–150, Aug. 13, 1915; and by Pocock, Proc. Zool. Soc. London, 1921, pt. 2, pp. 389–422, July 8, 1921.

[85] See Hollister, Proc. U. S. Nat. Mus., vol. 49, pp. 143–144, Aug. 13, 1915. Bassariscinae regarded as a subfamily of the Procyonidae by Pocock, Proc. Zool. Soc. London, 1921, pt. 2, p. 421; June 28, 1921.

Type Locality.—Texas, exact locality unknown. *Range.*—Texas, Upper Sonoran part of New Mexico, southern Colorado, and in Arizona (V. Bailey, North Amer. Fauna No. 53, p. 346, Mar. 1, 1932); eastward to Jefferson County, Tex. (Blair, Journ. Mamm., vol. 30, No. 3, p. 202, May 23, 1949).

Bassariscus astutus arizonensis Goldman†*

1932. *Bassariscus astutus arizonensis* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 87, June 21, 1932.

Type Locality.—Cosper Ranch, about 12 miles south of Blue, Greenlee County, Ariz. Altitude, 5,000 feet. *Range.*—Arizona south and east of the Colorado River, southwestern New Mexico, and probably northern Sonora and northwestern Chihuahua, México. Recorded also from Utah east of Green and Colorado Rivers (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 413, Aug. 10, 1952).

Bassariscus astutus yumanensis Huey

1937. *Bassariscus astutus yumanensis* Huey, Trans. San Diego Soc. Nat. Hist., vol. 8, No. 25, p. 357, June 15, 1937.

Type Locality.—Tinajas Altas, Gila Mountains, Yuma County, Ariz.

Bassariscus astutus nevadensis Miller†*

1913. *Bassariscus astutus nevadensis* Miller, Proc. Biol. Soc. Washington, vol. 26, p. 159, June 30, 1913.

Type Locality.—El Dorado Canyon, Clark County, Nev. *Range.*—California east of Sierra Nevada (Inyo County), southern part of Nevada (Hall, Mammals of Nevada, p. 179, July 1, 1946), and Utah west of Green and Colorado Rivers (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 411, Aug. 10, 1952).

Bassariscus astutus willetti Stager

1950. *Bassariscus astutus willetti* Stager, Proc. Biol. Soc. Washington, vol. 63, p. 203, Dec. 29, 1950.

Type Locality.—Riverside Mountains, extreme northeastern corner of Riverside County, Calif. *Range.*—Known from type locality and southward to, and including, Palo Verde Mountains, Imperial County, Calif.

Bassariscus astutus raptor (Baird)†*

1859. *Bassaris raptor* Baird, Mammals of the boundary, *in* Emory, Rep. United States and Mexican boundary survey, . . . , vol. 2, pt. 2, p. 19, January 1859.

1894. *Bassariscus flavus oregonus* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 45 (1893), p. 416, Jan. 30, 1894. (Grant's Pass, Josephine County, Oreg.)

1897. *Bassariscus raptor* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 186, July 1, 1897.

1913. *Bassariscus astutus raptor* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 289, Aug. 28, 1913.

Type Locality.—The type specimen was caught in the city of Washington, D. C., where it had escaped from captivity. Glen Ellen, Sonoma County, Calif., designated "by restriction" as the type locality (Hall, Univ. California Publ. Zool., vol. 30, No. 3, p. 44, Sept. 8, 1926). *Range.*—Southwestern Oregon and California west of longitude of Mount Shasta south to Ventura County and on western flank of Sierra Nevada from Tehama County south at least to Tulare County (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 99, Sept. 26, 1933; Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, p. 169, Aug. 10, 1937).

Bassariscus astutus octavus Hall

1926. *Bassariscus astutus octavus* Hall, Univ. California Publ. Zool. vol. 30, No. 3, p. 39, Sept. 8, 1926.

Type Locality.—San Luis River, near Escondido, San Diego County, Calif. Altitude, 1,700 feet. *Range.*—Pacific slope of northwestern Baja California and southern California, from Jacumba, near Mexican border, northwest at least to Matilija, Ventura County; vertical range, 750 to 5,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 100, Sept. 26, 1933).

Bassariscus astutus palmarius Nelson and Goldman†*

1909. *Bassariscus astutus palmarius* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 26, Mar. 10, 1909.

Type Locality.—Comondú, Baja California, México.

Bassariscus astutus saxicola Merriam†*

1897. *Bassariscus saxicola* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 185, July 1, 1897.

1926. *Bassariscus astutus saxicola* Hall, Univ. California Publ. Zool., vol. 30, No. 3, p. 46, Sept. 8, 1926.

Type Locality.—Espíritu Santo Island, Gulf of California, Baja California, México.

Bassariscus astutus insulicola Nelson and Goldman†*

1909. *Bassariscus astutus insulicola* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 22, p. 26, Mar. 10, 1909.

Type Locality.—San José Island, Gulf of California, Baja California, México.

Genus JENTINKIA Trouessart

1886. *Wagneria* Jentink, Notes Leyden Mus., vol. 8, p. 129. (Type, *Bassaris sumichrasti* Saussure. Not of Robineau-Desvoidy 1830, or of Alenitzin 1873.)

1904. *Jentinkia* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 1, p. 184. (Substitute for *Wagneria* Jentink, 1886. For status see Pocock, Proc. Zool. Soc. London, 1921, pt. 2, pp. 406, 417, June 8, 1921; and Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, pp. 484–485, Oct. 19, 1932.)

Jentinkia sumichrasti sumichrasti (Saussure)*

1860. *Bassaris sumichrasti* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 7, January 1860.

1884. *Bassaris sumichrasti* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

1921. *Jentinkia sumichrasti* Pocock, Proc. Zool. Soc. London, 1921, pt. 2, p. 392, June 8, 1921.

1932. *Jentinkia sumichrasti sumichrasti* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 486, Oct. 19, 1932.

Type Locality.—Mirador, Veracruz, México. *Range.*—Mountains of Veracruz.

Jentinkia sumichrasti campechensis Nelson and Goldman†*

1932. *Jentinkia sumichrasti campechensis* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 486, Oct. 19, 1932.

Type Locality.—Apazote, near Yohaltún, central Campeche, México. *Range.*—Tropical lowland forests of Yucatán Peninsula, probably ranging into northern Guatemala and British Honduras.

Jentinkia sumichrasti variabilis (Peters)

1874. *Bassaris variabilis* Peters, Monatsb. Preuss. Akad. Wiss., Berlin, 1874, p. 704.

1903. *Bassariscus sumichrasti variabilis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 379, April 1903.

1932. *Jentinkia sumichrasti variabilis* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 485, Oct. 19, 1932.

Type Locality.—Cobán, Alta Verapaz, Guatemala. *Range.*—From Chiapas, México, south through mountains of south-central and Pacific side of Guatemala and Honduras (see Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 178, May 29, 1942). Recorded also from Silkgrass, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 561, July 10, 1951).

Jentinkia sumichrasti notinus (Thomas)*

1903. *Bassariscus sumichrasti notinus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 11, p. 379, April 1903.

1932. *Jentinkia sumichrasti notinus* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 22, p. 486, Oct. 19, 1932.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 6,000 feet. *Range.*—Western Panamá and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 430, Dec. 31, 1946).

Genus PROCYON[96] Storr (raccoons)

1780. *Procyon* Storr, Prodromus methodi Mammalium . . . , p. 37. (Type, *Ursus lotor* Linnaeus.)

Subgenus EUPROCYON Gray (crab-eating raccoons)

1865. *Euprocyon* Gray, Proc. Zool. Soc. London, 1864, pt. 3, p. 704, May 1865. (Type, *Ursus cancrivorus* Cuvier.)

Procyon cancrivorus panamensis (Goldman)†*

1884. *Procyon cancrivorus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

1913. *Euprocyon cancrivorus panamensis* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 15, Feb. 28, 1913.

Type Locality.—Gatun, Canal Zone, Panamá. *Range.*—Western Panamá to near Colombian boundary; ranging north to Puntarenas province, Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 424, Dec. 31, 1946).

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[96] Regarded by Pocock (Proc. Zool. Soc. London, 1921, pt. 2, p. 422, July 8, 1921) as the type of a special subfamily, the *Procyoninae*. Genus *Procyon* revised by Goldman, North Amer. Fauna No. 60, pp. vi+153, November 7, 1950.

Subgenus PROCYON Storr

Procyon lotor lotor (Linnaeus) *

1758. [*Ursus*] *lotor* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 48.

1808. *L*[*otor*] *vulgaris* Tiedemann, Zoologie, . . . , vol. 1, p. 280. (Part.)

1815. *Procyon lotor* Illiger, Abhandl. Preuss. Akad. Wiss., Berlin, 1804–1811, pp. 70, 74.

1884. *Procyon lotor* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884. (Part.)

1911. *Pr*[*ocyon*] *hudsonicus* Brass, Aus dem Reiche der Pelze, p. 564, April 1911. (Hudson Bay region. Regarded as unidentifiable by Goldman, North Amer. Fauna No. 60, p. 5, Nov. 7, 1950.)

Type Locality.—Pennsylvania (see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 140, Mar. 22, 1911). *Range.*—Nova Scotia, southern New Brunswick, southern Quebec, and southern and central Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 35, Jan. 24, 1947), south through the eastern United States to North Carolina, and from the Atlantic coast west to Lake Michigan, Indiana, southern Illinois, western Kentucky, and probably eastern Tennessee (Goldman, op. cit., p. 33).

Procyon lotor maritimus Dozier†*

1948. *Procyon lotor maritimus* Dozier, Journ. Mamm., vol. 29, No. 3, p. 286, Aug. 31, 1948.

Type Locality.—Blackwater National Wildlife Refuge, Dorchester County, Md. *Range.*—Marsh areas on Delmarva Peninsula in Delaware, Maryland, and Virginia.

Procyon lotor solutus Nelson and Goldman†*

1931. *Procyon lotor solutus* Nelson and Goldman, Journ. Mamm., vol. 12, No. 3, p. 308, Aug. 24, 1931.

Type Locality.—Hilton Head Island, Beaufort County, S. C., *Range.*—Coast region and islands of South Carolina (Goldman, North Amer. Fauna No. 60, p. 41, Nov. 7, 1950).

Procyon lotor litoreus Nelson and Goldman†*

1930. *Procyon lotor litoreus* Nelson and Goldman, Journ. Mamm., vol. 11, No. 4, p. 457, Nov. 11, 1930.

Type Locality.—Saint Simon Island, Glynn County, Ga. *Range.*—Coastal strip and islands of Georgia (Goldman, North Amer. Fauna No. 60, p. 40, Nov. 7, 1950).

Procyon lotor elucus Bangs*

1898. *Procyon lotor elucus* Bangs, Proc. Boston Soc. Nat. Hist. vol. 28, p. 219, March 1898.

Type Locality.—Oak Lodge, East Peninsula opposite Micco, Brevard County, Fla. *Range.*—Peninsular Florida, except southwestern part inhabited by *marinus*, north to extreme southern Georgia; grading into *varius* in northwest Florida (Goldman, North Amer. Fauna No. 60, p. 42, Nov. 7, 1950).

Procyon lotor marinus Nelson†*

1930. *Procyon lotor marinus* Nelson, Smithsonian Misc. Coll. vol. 82, No. 8, p. 7, July 10, 1930.

Type Locality.—Near Chokoloskee, Collier County, Fla. *Range.*—Keys of Ten Thousand Islands Group, and adjoining mainland of southwestern Florida from Cape Sable north through Everglades to Lake Okeechobee (Goldman, North Amer. Fauna No. 60, p. 44, Nov. 7, 1950).

Procyon lotor inesperatus Nelson†*

1930. *Procyon lotor inesperatus* [sic] Nelson, Smithsonian Misc. Coll. vol. 82, No. 8, p. 8, July 10, 1930.

Type Locality.—Upper Matecumbe Key, Monroe County, Fla. *Range.*—Key Largo Group, embracing fringing keys along southeast coast of Florida, from Virginia Key south to Lower Matecumbe Key (Goldman, North Amer. Fauna No. 60, p. 46, Nov. 7, 1950).

Procyon lotor auspicatus Nelson†*

1930. *Procyon lotor auspicatus* Nelson, Smithsonian Misc. Coll., vol. 82, No. 8, p. 9, July 10, 1930.

Type Locality.—Marathon, Key Vaca, Monroe County, Fla. *Range.*—Key Vaca and doubtless closely adjoining keys of Key Vaca group, a central section of main chain off southern coast of Florida (Goldman, North Amer. Fauna No. 60, p. 47, Nov. 7, 1950).

Procyon lotor incautus Nelson†*

1930. *Procyon lotor incautus* Nelson, Smithsonian Misc. Coll., vol. 82, No. 8, p. 10, July 10, 1930.

Type Locality.—Torch Key, Big Pine Key Group, Monroe County, Fla. *Range.*—Big Pine Key Group, near southwestern end of chain of Florida Keys (Goldman, North Amer. Fauna No. 60, p. 48, Nov. 7, 1950).

Procyon lotor varius Nelson and Goldman†*

1930. *Procyon lotor varius* Nelson and Goldman, Journ. Mamm., vol. 11, No. 4, p. 456, Nov. 11, 1930.

Type Locality.—Castleberry, Conecuh County, Ala. *Range.*—Extreme southwestern Kentucky, Tennessee, Mississippi, northern Louisiana, Alabama, northwestern Florida, and western Georgia (Goldman, North Amer. Fauna No. 60, p. 38, Nov. 7, 1950).

Procyon lotor hirtus Nelson and Goldman†*

1930. *Procyon lotor hirtus* Nelson and Goldman, Journ. Mamm., vol. 11, No. 4, p. 455, Nov. 11, 1930.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—Upper Mississippi and Missouri drainage areas from eastern slopes of Rocky Mountains east to Lake Michigan, and from southern Manitoba and probably southwestern Ontario, southeastern Alberta and southern Saskatchewan (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 35, Jan. 24, 1947) south to southern Oklahoma and Arkansas (Goldman, North Amer. Fauna No. 60, p. 37, Nov. 7, 1950).

Procyon lotor megalodous Lowery*

1943. *Procyon lotor megalodous* Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 225, Nov. 22, 1943.

Type Locality.—Marsh Island, Iberia Parish, La. *Range.*—Coast region of southern Louisiana from St. Bernard Parish west to Cameron Parish.

Procyon lotor fuscipes Mearns†*

1914. *Procyon lotor fuscipes* Mearns, Proc. Biol. Soc. Washington, vol. 27, p. 63, Mar. 20, 1914.

Type Locality.—Las Moras Creek, Fort Clark, Kinney County, Tex. Altitude, 1,011 feet. *Range.*—Texas, except extreme northern and western parts, southern Arkansas, Louisiana, except delta region of Mississippi, and south into northeastern México, including Coahuila and Nuevo León, to southern Tamaulipas, México (Goldman, North Amer. Fauna No. 60, p. 50, Nov. 7, 1950).

Procyon lotor mexicanus Baird†*

1858. *Procyon hernandezii* var. *mexicana* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific Ocean, vol. 8, pt. 1 (Washington, 1857), p. 215, July 14, 1858.

1914. *Procyon lotor mexicanus* Mearns, Proc. Biol. Soc. Washington, vol. 27, p. 65, Mar. 20, 1914.

Type Locality.—Espia, northwestern Chihuahua, México. *Range.*—New Mexico, except northeastern and northwestern parts, southeastern Arizona, western Texas, and south through Chihuahua, eastern Sonora, Sinaloa, and Durango to northern Nayarit, México (Goldman, North Amer. Fauna No. 60, p. 52, Nov. 7, 1950).

Procyon lotor hernandezii Wagler*

1831. *Pr[ocyon] hernandezii* Wagler, Isis von Oken, vol. 24, p. 514.

1890. *Procyon lotor hernandezi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 176, Dec. 10, 1890.

Type Locality.—Valley of México, México (Tlalpan. See Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 17, Feb. 21, 1931). *Range.*—Southern part of tableland or plateau region of México and adjoining coasts, from Nayarit, Jalisco, and San Luis Potosí south to near the Isthmus of Tehuantepec (Goldman, North Amer. Fauna No. 60, p. 64, Nov. 7, 1950).

Procyon lotor shufeldti Nelson and Goldman†*

1931. *Procyon lotor shufeldti* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 17, Feb. 21, 1931.

Type Locality.—La Tuxpeña, Champotón, southeastern Campeche, México. *Range.*—From the Isthmus of Tehuantepec east through Chiapas, Tabasco, Campeche, Yucatán, Quintano Roo, British Honduras, and Guatemala to western Honduras; limits of range unknown (Goldman, North Amer. Fauna No. 60, p. 66, Nov. 7, 1950).

Procyon lotor dickeyi Nelson and Goldman

1931. *Procyon lotor dickeyi* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 18, Feb. 21, 1931.

Type Locality.—Barra de Santiago, Ahuachapán, southwestern El Salvador. *Range.*—Coast region of southwestern El Salvador and probably of southeastern Guatemala; limits of range unknown (Goldman, North Amer. Fauna No. 60, p. 67, Nov. 7, 1950).

Procyon lotor crassidens Hollister†*

1914. *Procyon lotor crassidens* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 142, July 10, 1914.

Type Locality.—Talamanca, Limón, southeastern Costa Rica. *Range.*—Costa Rica, Nicaragua, El Salvador, except southwestern coast region and probably Honduras, except western part; probably extending into western Panamá (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 423, Dec. 31, 1946).

Procyon lotor pumilus Miller†*

1911. *Procyon pumilus* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 3, Jan. 28, 1911.

1920. *Procyon lotor pumilus* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 151, Apr. 26, 1920.

Type Locality—Ancón, Canal Zone, Panamá. *Range.*—Panamá and Canal Zone from Porto Bello west to Boquerón, Chiriquí; limits of range unknown (Goldman, North Amer. Fauna No. 60, p. 70, Nov. 7, 1950).

Procyon lotor grinnelli Nelson and Goldman†*

1930. *Procyon lotor grinnelli* Nelson and Goldman, Journ. Washington Acad. Sci. vol. 20, p. 82, Mar. 4, 1930.

Type Locality.—La Paz, Baja California, México. *Range.*—Southern Baja California from the Cape region north at least to San Ignacio (Goldman, North Amer. Fauna No. 60, p. 62, Nov. 7, 1950).

Procyon lotor pallidus Merriam†*

1900. *Procyon pallidus* Merriam, Proc. Biol. Soc. Washington, vol. 13, p. 151, June 13, 1900.

1914. *Procyon lotor ochraceus* Mearns†, Proc. Biol. Soc. Washington, vol. 27, p. 64, Mar. 20, 1914. (Monument No. 172, Río Sonoyta, Sonora, México, near Quitobaquito, Ariz.; altitude, 1,181 feet.)

1923. *Procyon lotor pallidus* Grinnell, Univ. California Publ. Zool., vol. 21, No. 10, p. 316, Jan. 27, 1923.

Type Locality.—New River [about 6 miles west of Imperial], Colorado Desert, Imperial County Calif. *Range.*—Colorado and Gila River Valleys and adjoining territory from the delta north to southeastern Nevada (Hall, Mammals of Nevada, p. 179, July 1, 1946) and northeastern Utah, and east to western Colorado and northwestern New Mexico (Goldman, North Amer. Fauna No. 60, p. 54, Nov. 7, 1950).

Procyon lotor psora Gray*

1842. *Procyon psora* Gray, Ann. Mag. Nat. Hist., vol. 10, p. 261, December 1842.

1899. [*Procyon*] *psora* Merriam, North Amer. Fauna No. 16, p. 107, Oct. 28, 1899.

1914. *Procyon lotor californicus* Mearns†, Proc. Biol. Soc. Washington, vol. 27, p. 66, Mar. 20, 1914. (Ocean beach near last Mexican boundary monument [No. 258], San Diego County, Calif.)

1923. *Procyon lotor psora* Grinnell, Univ. California Publ. Zool., vol. 21, No. 10, p. 316, Jan. 27, 1923.

Type Locality.—Sacramento, Sacramento County, Calif. *Range.*—California, except extreme northwest coastal strip, the northeastern corner and southeastern desert region, ranging south through northwestern Baja California to San Quintín (Goldman, North Amer. Fauna No. 60, p. 56, Nov. 7, 1950); extreme west-central

Nevada on east slope of Sierra Nevada (Hall, Mammals of Nevada, p. 178, July 1, 1946).

Procyon lotor pacificus Merriam†*

1899. *Procyon psora pacifica* Merriam, North Amer. Fauna No. 16, p. 107, Oct. 28, 1899.

1911. *?Procyon proteus* Brass, Aus dem Reiche der Pelze, p. 564, April 1911. (West coast from Puget Sound to the Cascade Mountains. Not of J. A. Allen, 1904.)

1923. *Procyon lotor pacifica* Grinnell, Univ. California Publ. Zool., vol. 21, No. 10, p. 316, Jan. 27, 1923.

Type Locality.—Lake Keechelus, Kittitas County, Wash. Altitude, 3,000 feet. *Range.*—Southwestern British Columbia, except Vancouver Island, northern, central and western Washington, western Oregon, and extreme northwestern California (Goldman, North Amer. Fauna No. 60, p. 58, Nov. 7, 1950).

Procyon lotor excelsus Nelson and Goldman†*

1930. *Procyon lotor excelsus* Nelson and Goldman, Journ. Mamm., vol. 11, No. 4, p. 458, Nov. 11, 1930.

Type Locality.—Owyhee River [near mouth of North Fork], Malheur County, southeastern Oregon, 10 miles west of Fairylawn, Owyhee County, Idaho. *Range.*—Snake River drainage in southeastern Washington (see also Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 182, Apr. 9, 1948), eastern Oregon, southern Idaho, northern Nevada (Hall, Mammals of Nevada, p. 178, July 1, 1946), and river valleys of northeastern California (Goldman, North Amer. Fauna No. 60, p. 60, Nov. 7, 1950).

Procyon lotor vancouverensis Nelson and Goldman†*

1930. *Procyon lotor vancouverensis* Nelson and Goldman, Journ. Mamm., vol. 11, No. 4, p. 458, Nov. 11, 1930.

Type Locality.—Quatsino Sound, Vancouver Island, British Columbia, Canada. *Range.*—Known only from Vancouver Island.

Procyon lotor castaneus de Beaux

1910. *Procyon hernandezi castaneus* de Beaux, Zool. Anzeiger, vol. 35, p. 624, Apr. 26, 1910. (Regarded as unidentifiable by Goldman, North Amer. Fauna No. 60, pp. 5, 92, Nov. 7, 1950.)

Type Locality.—México.

Procyon lotor flavidus de Beaux

1910. *Pr[ocyon] l[otor] flavidus* de Beaux, Zool. Anzeiger, vol. 35, p. 626, Apr. 26, 1910. (Regarded as unidentifiable by Goldman, North Amer. Fauna No. 60, pp. 5, 92, Nov. 7, 1950.)

Type Locality.—"Southern United States?"

Procyon lotor rufescens de Beaux

1910. *Pr[ocyon] lotor rufescens* de Beaux, Zool. Anzeiger, vol. 35, p. 625, Apr. 26, 1910. (Regarded as unidentifiable by Goldman, North Amer. Fauna No. 60, pp. 5, 92, Nov. 7, 1950.)

Type Locality.—Unknown.

Procyon insularis insularis Merriam†*

1898. *Procyon lotor insularis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 17, Jan. 27, 1898.

1931. *Procyon insularis insularis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 20, Feb. 21, 1931.

Type Locality.—María Madre Island, Tres Marías Islands, off west coast of Nayarit, México. *Range.*—Known only from María Madre Island.

Procyon insularis vicinus Nelson and Goldman†*

1931. *Procyon insularis vicinus* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 44, p. 20, Feb. 21, 1931.

Type Locality.—María Magdalena, Tres Marías Islands, off west coast of Nayarit, México. *Range.*—Known only from María Magdalena Island.

Procyon maynardi Bangs*

1898. *Procyon maynardi* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 92, Apr. 30, 1898.

Type Locality.—New Providence Island, Bahamas. *Range.*—Known only from New Providence Island.

Procyon pygmaeus Merriam†*

1901. *Procyon pygmaeus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 101, July 19, 1901.

Type Locality.—Cozumel Island, Quintana Roo, México. *Range.*—Known only from Cozumel Island.

Procyon minor Miller†*

1911. *Procyon minor* Miller, Proc. Biol. Soc. Washington, vol. 24, p. 4, Jan. 28, 1911.

Type Locality.—Pointe-à-Pitre, Guadeloupe, Lesser Antilles, West Indies. *Range.*—Known only from Guadeloupe Island.

Procyon gloveralleni Nelson and Goldman

1930. *Procyon gloveralleni* Nelson and Goldman, Journ. Mamm., vol. 11, No. 4, p. 453, Nov. 11, 1930.

Type Locality.—Barbados, Lesser Antilles, West Indies. *Range.*—Known only from the Island of Barbados.

Genus NASUA[87] Storr (coatis)

1780. *Nasua* Storr, Prodromus Methodi Mammalium . . . , p. 35, Tab. A. (Type, *Viverra nasua* Linnaeus.)

Nasua narica narica (Linnaeus)*

1766. [*Viverra*] *narica* Linnaeus, Systema naturae, ed. 12, vol. 1, p. 64.

1860. *Nasua solitaria* var. *mexicana* Weinland, Zool. Garten, vol. 1, p. 191. (Near hacienda El Mirador, 20 leagues from Vera Cruz, México; altitude, about 4,000 feet.)

1884. *Nasua narica* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884. (Part.)

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[87] Regarded by Pocock (Proc. Zool. Soc. London, 1921, pt. 2, p. 422, July 8, 1921) as the type of a special subfamily, the *Nasuinae*.

Type Locality.—State of Veracruz, México (See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 51, Feb. 29, 1904. Restricted to Achotal, Isthmus of Tehuantepec, Veracruz, by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 560, July 10, 1951.) *Range.*—Lowlands and lower mountain slopes in Veracruz, Tabasco, northern Oaxaca, and northern Chiapas, México (Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 79, June 25, 1942).

Nasua narica tamaulipensis Goldman†*

1942. *Nasua narica tamaulipensis* Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 80, June 25, 1942. (Regarded as identical with *molaris* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 560, July 10, 1951.)

Type Locality.—Cerro de la Silla, near Monterrey, Nuevo León, México. Altitude, 2,600 feet. *Range.*—Warmer, low mountain slopes and other forested parts of Coahuila, Nuevo León, and Tamaulipas, México; rarely along the Río Grande Valley from Brownsville west to near Big Bend above the mouth of Pecos River in Texas.

Nasua narica pallida J. A. Allen*

1904. *Nasua narica pallida* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 53, Feb. 29, 1904. (Regarded as identical with *molaris* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 560, July 10, 1951.)

Type Locality.—Sierra Madre, near Guadalupe y Calvo, Chihuahua, México. *Range.*—Lower western slopes of the Sierra Madre from Sinaloa north to southeastern Arizona (Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 80, June 25, 1942. For range of coati in United States see Taber, Journ. Mamm., vol. 21, No. 1, pp. 1–14, Feb. 15, 1940.)

Nasua narica molaris Merriam†*

1902. *Nasua narica molaris* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 68, Mar. 22, 1902.

Type Locality.—Manzanillo, Colima, México. *Range.*—From Jalisco south through Colima, Michoacán, Guerrero, Morelos, and adjoining parts of the States of México and Puebla to southwestern Oaxaca, México (Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 79, June 25, 1942).

Nasua narica isthmica Goldman†*

1942. *Nasua narica isthmica* Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 81, June 15, 1942. (Regarded as identical with *Nasua narica narica* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 559, July 10, 1951.)

Type Locality.—Santa Efigenia, about 8 miles northwest of Tapanatepec, southeastern Oaxaca, México. Altitude, 1,200 feet. *Range.*—Southern Oaxaca and southeastward along the Pacific coast to El Salvador.

Nasua narica yucatanica J. A. Allen*

1904. *Nasua narica yucatanica* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 52, Feb. 29, 1904.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Low, flat Peninsula of Yucatán, comprising the States of Yucatán, Campeche, the Territory of

Quintana Roo, northern Guatemala, and probably northern British Honduras (Goldman, Proc. Biol. Soc. Washington, vol. 55, p. 79, June 25, 1942).

Nasua narica richmondi Goldman†*

1932. *Nasua narica richmondi* Goldman, Journ. Washington Acad. Sci., vol. 22, p. 312, June 4, 1932. (Regarded as identical with *Nasua narica narica* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 559, July 10, 1951.)

Type Locality.—Escondido River, 50 miles above Bluefields, Zelaya, Nicaragua. *Range.*—Humid and tropical forested region of eastern Nicaragua and Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 176, May 29, 1942).

Nasua narica bullata J. A. Allen*

1904. *Nasua narica bullata* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 48, Feb. 29, 1904. (Regarded as identical with *Nasua narica narica* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ, 670, vol. 31, p. 559, July 10, 1951.)

Type Locality.—Pozo Azul, San José, Costa Rica. *Range.*—Costa Rica.

Nasua narica panamensis J. A. Allen*

1904. *Nasua narica panamensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 51, Feb. 29, 1904. (Regarded as identical with *Nasua narica narica* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 559, July 10, 1951.)

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—Western and eastern Panamá (see Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 153–155, Apr. 26, 1920).

Nasua nelsoni Merriam†*

1901. *Nasua nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 100, July 19, 1901.

1901. *Nasua thersites* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 8, p. 271, October 1901.

Type Locality.—Cozumel Island, Quintana Roo, México.

Genus **POTOS**[88] **É. Geoffroy-Saint-Hilaire and G. Cuvier (kinkajous)**

1795. *Potos* É. Geoffroy-Saint-Hilaire and G. Cuvier, Mag. Encyclopédique, new ser., vol. 2, p. 187. (Type, *Viverra caudivolvula* Schreber.)

Potos flavus aztecus Thomas*

1884. *Cercoleptes caudivolvulus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884. (Part.)

1902. *Potos flavus aztecus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 9, p. 268, April 1902.

Type Locality.—Atoyac, Veracruz, México. *Range.*—Northern Veracruz northward at least to Xilitla, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 12, July 10, 1950).

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[88] Regarded by Pocock (Proc. Zool. Soc. London, 1921, pt. 2, p. 421, July 8, 1921) as the type of a special subfamily, the *Potosinae*.

Potos flavus guerrerensis Goldman†*

1915. *Potos flavus guerrerensis* Goldman, Proc. Biol. Soc. Washington, vol. 28, p. 133, June 29, 1915.

Type of Locality.—Ometepec, Guerrero, México.

Potos flavus dugesii Villa

1944. *Potos flavus dugesii* Villa, Anal. Inst. Biol. Univ. Nac. México, vol. 15, No. 1, p. 323.

Type Locality.—Southeast of La Esperanza coffee plantation, 45 kilometers northeast of Huixtla, Chiapas, México. Altitude, 760 meters. *Range.*—Sierra Madre del Sur, Chiapas.

Potos flavus campechensis Nelson and Goldman†*

1931. *Potos flavus campechensis* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 21, p. 482, Nov. 19, 1931.

Type Locality.—La Tuxpeña, Champotón, Campeche, México. *Range.*—Chiapas, Campeche, Yucatán Peninsula, Tabasco, Guatemala, and northern Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 177, May 29, 1942). Recorded also from Bokowina, Silkgrass, Dog Creek, Double Falls, and Kate's Lagoon in British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 561, July 10, 1951).

Potos flavus arborensis Goodwin†*

1938. *Potos flavus arborensis* Goodwin, Amer. Mus. Nov., No. 987, p. 1, May 13, 1938.

Type Locality.—El Sauce Peralta, a farm on the Atlantic Railway less than halfway from San José to Limón, Cartago, Costa Rica. Altitude, about 1,000 feet. *Range.*—Eastern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 429, Dec. 31, 1946).

Potos flavus chiriquensis J. A. Allen*

1904. *Potos flavus chiriquensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 72, Feb. 29, 1904.

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—Western Panamá eastward at least as far as Canal Zone (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 159, Apr. 26, 1920) and northward to northwestern Costa Rica on Pacific side of Cordillera. Vertical range from near sea level to over 5,000 feet (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 428, Dec. 31, 1946).

Potos flavus isthmicus Goldman†*

1913. *Potos flavus isthmicus* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 14, Feb. 28, 1913.

Type Locality.—Near head of Río Limón, Mount Pirri, Darién, eastern Panamá. Altitude, 5,200 feet. *Range.*—Mountains of eastern Panamá (see Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 158, Apr. 26, 1920).

Genus BASSARICYON[89] J. A. Allen

1876. *Bassaricyon* J. A. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 28, p. 20, Apr. 18, 1876. (Type, *Bassaricyon gabbii* J. A. Allen.)

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[89] Regarded by Pocock (Proc. Zool. Soc. London, 1921, pt. 2, p. 422, July 8, 1921) as the type of a special subfamily, the *Bassaricyoninae*.

Bassaricyon gabbii gabbii J. A. Allen†*

1876. *Bassaricyon gabbii* J. A. Allen, Proc. Acad. Nat. Sci. Philadelphia, vol. 28, p. 21, Apr. 18, 1876.

1884. *Bassaricyon gabbii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

Type Locality.—Talamanca, Limón, Costa Rica. *Range.*—Eastern Costa Rica; limits of range unknown. Recorded also in western Panamá and in the Canal Zone at Corozal and near Gatún (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 156, Apr. 26, 1920).

Bassaricyon gabbii richardsoni J. A. Allen

1908. *Bassaricyon richardsoni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 662, Oct. 13, 1908.

1946. *Bassaricyon gabbii richardsoni* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 426, Dec. 31, 1946.

Type Locality.—Río Grande, Atlantic slope, Nicaragua. Altitude, below 1,000 feet. *Range.*—Nicaragua and adjacent parts of Costa Rica.

Bassaricyon gabbii orinomus Goldman†*

1912. *Bassariscyon* [sic] *gabbi orinomus* Goldman, Smithsonian Misc. Coll., vol. 60, No. 2, p. 16, Sept. 20, 1912.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 1,800 feet. *Range.*—Mountains of eastern Panamá.

Bassaricyon lasius Harris

1932. *Bassaricyon lasius* Harris, Occ. Pap. Mus. Zool. Univ. Michigan No. 248, p. 3, Aug. 4, 1932.

Type Locality.—Estrella de Cartago, near the source of the Río Estrella, 6 or 8 miles south of Cartago, Cartago, Costa Rica. Altitude, about 4,500 feet.

Bassaricyon pauli Enders

1936. *Bassaricyon pauli* Enders, Proc. Acad. Nat. Sci. Philadelphia, vol. 88, p. 365, Sept. 29, 1936.

Type Locality.—Cerro Pando, between Río Chiriquí Viejo and Río Colorado (about 10 miles from El Volcán), Chiriquí, Panamá. Altitude, 4,800 feet.

Family MUSTELIDAE [90]

Subfamily MUSTELINAE

Genus MARTES Pinel [91] (martens)

1792. *Martes* Pinel, Actes Soc. Hist. Nat. Paris, vol. 1, p. 55. (Type, *Martes domestica* Pinel=*Mustela foina* Erxleben.)

Subgenus MARTES Pinel (martens)

Martes americana americana (Turton)*

1806. [*Mustela*] *americanus* Turton, A general system of nature, . . . , translated from Gmelin . . . , with a life of Linné . . . , vol. 1, p. 60.

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[90] The classification here adopted is modified from that of Pocock, Proc. Zool. Soc. London, 1921, pt. 4, pp. 829–837, Jan. 27, 1922.

[91] For present use of the names *Martes* and *Mustela* see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, pp. 138, 139, Mar. 22, 1911.

1884. *Mustela americana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1912. *Martes americana americana* Miller, U. S. Nat. Mus. Bull. 79, p. 92, Dec. 31, 1912.

Type Locality.—Eastern North America. *Range.*—Restricted to heavily wooded parts of eastern Canada and adjacent parts of northern Maine, New Hampshire, Vermont, New York, Michigan, Wisconsin, and Minnesota; intergrading with the darker form *brumalis* in New Quebec, and with *abieticola* in region southwest of Hudson Bay in extreme western Ontario or eastern Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 57, Jan. 24, 1947).

Martes americana brumalis (Bangs) *

1898. *Mustela brumalis* Bangs, Amer. Nat., vol. 32, p. 502, July 1898.

1912. *Martes brumalis* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

1934. *Martes americana brumalis* Anderson, Mammals of the eastern Arctic and Hudson Bay, *in* Canada's Eastern Arctic, Dept. Interior, Ottawa, p. 95.

Type Locality.—Okkak, Labrador, Canada. *Range.*—Wooded parts of Labrador and eastern parts of New Quebec, at least as far northwest as Chimo, intergrading with *americana* in northern Quebec, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 58, Jan. 24, 1947).

Martes americana abieticola (Preble) †*

1902. *Mustela americana abieticola* Preble, North Amer. Fauna No. 22, p. 68, Oct. 31, 1902.

1912. *Martes americana abieticola* Miller, U. S. Nat. Mus. Bull. 79, p. 92, Dec. 31, 1912.

Type Locality.—Cumberland House, Saskatchewan, Canada. *Range.*—Wooded parts of northern Manitoba, Saskatchewan, and Alberta; limits of range imperfectly known (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 58, Jan. 24, 1947).

Martes americana abietinoides Gray*

1865. [*Martes americana*] var. 1., *abietinoides* Gray, Proc. Zool. Soc. London, pt. 1, p. 106, June 1865.

1902. *Mustela americana abietinoides* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 451, Sept. 30, 1902.

1912. *Martes americana abietinoides* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

Type Locality.—"Edge of the humid western slope of the Rocky Mountains, somewhere between Kicking Horse Pass and the Columbia River" (Rhoads, loc. cit.). *Range.*—Humid parts of mountains in southern British Columbia, particularly the Selkirk and Gold Ranges; east in Rocky Mountains to Banff and Jasper National Parks; northern limits of range unknown (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 58, Jan. 24, 1947).

Martes americana actuosa (Osgood) †*

1900. *Mustela americana actuosa* Osgood, North Amer. Fauna No. 19, p. 43, Oct. 6, 1900.

1905. *Mustela boria* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 139, Apr. 18, 1905. (Lower Mackenzie River district, toward Arctic Ocean; exact locality unknown. Regarded by Preble, North Amer. Fauna No. 27, pp. 236–237, Oct. 26, 1908, and by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 58, Jan. 24, 1947, as identical with *actuosa*).

1912. *Martes americana actuosa* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

Type Locality.—Fort Yukon, Alaska. *Range.*—Timbered districts of Alaska (exclusive of Kenai Peninsula and adjacent range of *kenaiensis*), Yukon, Mackenzie District of Northwest Territories, northeastern British Columbia, and northwestern Alberta (Anderson, loc. cit.). Recorded also northward to Hunt Fork, a tributary of John River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 465, Nov. 21, 1950).

Martes americana kenaiensis (Elliot) *

1903. *Mustela americana kenaiensis* Elliot, Field Columb. Mus. Publ. 72, Zool. Ser., vol. 3, No. 9 (February), p. 151, Mar. 20, 1903.

1912. *Martes americana kenaiensis* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

Type Locality.—Kenai Peninsula, Alaska.

Martes atrata (Bangs) *

1897. *Mustela atrata* Bangs, Amer. Nat., vol. 31, p. 162, February 1897.

1912. *Martes atrata* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

Type Locality.—Bay St. George, Newfoundland. *Range.*—Restricted to Newfoundland.

Martes caurina caurina (Merriam) †*

1890. *Mustela caurina* Merriam, North Amer. Fauna No. 4, p. 27, Oct. 8, 1890.

1912. *Martes caurina caurina* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

Type Locality.—Near Gray's Harbor, Grays Harbor County, Wash. *Range.*—On western slopes of coastal mountains from western Oregon and Washington, north along British Columbia coast mountains to Alaska Panhandle; extending up Fraser and Thompson River Valleys as far as Lillooet, and in Bella Coola area to Caribou and Rainbow Mountains (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 59, Jan. 24, 1947).

Martes caurina nesophila (Osgood) †*

1901. *Mustela nesophila* Osgood, North Amer. Fauna No. 21, p. 33, Sept. 26, 1901.

1912. *Martes nesophila* Miller, U. S. Nat. Mus. Bull. 79, p. 94, Dec. 31, 1912.

1926. *Mustela caurina nesophila* Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 16, p. 417, Mar. 17, 1926.

Type Locality.—Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada.

Martes caurina vancouverensis Grinnell and Dixon*

1926. *Martes caurina vancouverensis* Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 16, p. 414, Mar. 17, 1926.

Type Locality.—Golden Eagle Mine, 20 miles south of Alberni, Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island.

Martes caurina origenes (Rhoads) †*

1902. *Mustela caurina origenes* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 458, Sept. 30, 1902.

1912. *Martes caurina origenes* Miller, U. S. Nat. Mus. Bull. 79, p. 93, Dec. 31, 1912.

Type Locality.—Marvine Mountain, Garfield County, Colo. *Range.*—From northern New Mexico through Colorado, Utah, Wyoming, and Idaho into Blue Mountains of northeastern Oregon (V. Bailey, North Amer. Fauna No. 55, p. 297, Aug. 29, 1936; see also Davis, The Recent mammals of Idaho, pp. 130–133, Apr. 5, 1939); and Blue Mountains of southeastern and mountainous areas of northeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 186, Apr. 9, 1948).

Martes caurina humboldtensis Grinnell and Dixon*

1926. *Martes caurina humboldtensis* Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 16, p. 411, Mar. 17, 1926.

Type Locality.—Ridge about 5 miles northeast of Cuddeback [Carlotta], Humboldt County, Calif. *Range.*—Narrow northwest humid coast strip, chiefly within limits of redwoods, from Oregon line in Del Norte County south, at least formerly, as far as old Fort Ross, Sonoma County, Calif.; vertical range, from sea level up to about 3,000 feet (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 100, Sept. 26, 1933).

Martes caurina sierrae Grinnell and Storer*

1916. *Martes caurina sierrae* Grinnell and Storer, Univ. California Publ. Zool., vol. 17, No. 1, p. 2, Aug. 23, 1916.

Type Locality.—Head of Lyell canyon, Yosemite National Park, Tuolumne County, Calif. Altitude, 9,800 feet. *Range.*—Sierra Nevada above 6,000-foot level from Jordan Hot Springs, Tulare County, north to Mount Shasta, Siskiyou County; thence west and northwest through Trinity, Scott, and Salmon Mountains, in Trinity and Siskiyou Counties, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 100, Sept. 26, 1933); and Sierra Nevada in Nevada in vicinity of Lake Tahoe (Hall, Mammals of Nevada, p. 183, July 1, 1946).

Subgenus PEKANIA Gray (fishers)

1865. *Pekania* Gray, Proc. Zool. Soc. London, 1865, pt. 1, p. 107, June 1865. (Type *Mustela pennanti* Erxleben.)

Martes pennanti pennanti (Erxleben) *

1777. [*Mustela*] *pennanti* Erxleben, Systema regni animalis . . ., p. 470.

1884. *Mustela pennanti* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884.

1912. *Martes pennanti pennanti* Miller, U. S. Nat. Mus. Bull. 79, p. 94, Dec. 31, 1912.

Type Locality.—Eastern Canada (=Province of Quebec). *Range.*—Heavily wooded districts of Canada, west to Rocky Mountains; formerly south in Allegheny Mountains to North Carolina and in Rocky Mountains to Yellowstone Park; north in Quebec to about latitude of James Bay; from Manitoba westward it is considered to intergrade with *columbiana* through northern Saskatchewan and northern Alberta, and north to Great Slave Lake, Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 59, Jan. 24, 1947).

Martes pennanti columbiana Goldman†*

1935. *Martes pennanti columbiana* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 176, Nov. 15, 1935.

Type Locality.—Stuart Lake, near headwaters of Fraser River, British Columbia, Canada. *Range.*—Rocky Mountain region and central and northern British Columbia (Fort Nelson), north to extreme southern parts of Yukon; south, formerly at least, to central Idaho (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 60, Jan. 24, 1947).

Martes pennanti pacifica (Rhoads)*

1898. *Mustela canadensis pacifica* Rhoads, Trans. Amer. Philos. Soc., new ser., vol. 19, p. 435, September 1898. (Regarded by Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, pp. 216–217, Aug. 10, 1937, as identical with *pennanti*. See also Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 177, Nov. 15, 1935.)

1912. *Martes pennanti pacifica* Miller, U. S. Nat. Mus. Bull. 79, p. 94, Dec. 31, 1912.

Type Locality.—Lake Keechelus, Kittitas County, Wash. Altitude, 3,000 feet. *Range.*—Forested parts of higher mountains from north-central Kern County, Calif., through Sierra Nevada and vicinities of Mount Shasta and Lassen Peak, western and northeastern Oregon, Washington, and western British Columbia to southern Alaska Panhandle (see Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 101, Sept. 26, 1933; and Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 60, Jan. 24, 1947).

Genus MUSTELA[92] Linnaeus

1758. *Mustela* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 45. (Type, *Mustela erminea* Linnaeus. See Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 138, Mar. 22, 1911.)

Subgenus MUSTELA Linnaeus

Mustela erminea arctica (Merriam)†*

1896. *Putorius arcticus* Merriam, North Amer. Fauna No. 11, p. 15, June 30, 1896.

1904. *Putorius audax* Barrett-Hamilton, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 392, May 1904 (Discovery Bay, north Greenland, probably Ellesmere Island).

1912. *Mustela arctica arctica* Miller, U. S. Nat. Mus. Bull. 79, p. 97, Dec. 31, 1912.

1912. *Mustela audax* Miller, U. S. Nat. Mus. Bull. 79, p. 97, Dec. 31, 1912.

1945. *Mustela erminea arctica* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 179, July 13, 1945.

Type Locality.—Point Barrow, Alaska. *Range.*—Arctic regions of Alaska and western Canada from Pacific Ocean to Smith Sound; from northern limit of land south approximately to a line from Skagway through Fort Goodhope, north shore of Great Bear Lake, south shore of Clinton Golden Lake, north shore of Baker Lake, west end of Wagner Bay to south end of Committee Bay (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 97, Dec. 27, 1951).

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[92] Revised by Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, pp. 1–466, Dec. 27, 1951.

Mustela erminea polaris (Barrett-Hamilton)

1904. *Putorius arcticus polaris* Barrett-Hamilton, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 393, May 1904.

1945. *Mustela erminea polaris* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 179, July 13, 1945.

Type Locality.—Gap Valley, 7¼ miles northeast of Cape Brevoort, lat. 82° N., long. 59°20′ W., northwestern Greenland. *Range.*—North coast of Greenland and east coast as far south as Turner Sound (between lat. 69° and 70° N.) (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 103, Dec. 27, 1951).

Mustela erminea semplei Sutton and Hamilton*

1932. *Mustela arctica semplei* Sutton and Hamilton, Ann. Carnegie Mus., vol. 21, p. 79, Feb. 13, 1932.

1935. *Mustela arctica labiata* Degerbøl, *in* Degerbøl and Freuchen, Mammals, *in* Rep. Fifth Thule Exped. 1921–1924, Danish Exped. to Arctic North America, vol. 2, Nos. 4–5, pt. 1, p. 25. (Malugsitaq, Melville Peninsula, Franklin District, Canada.)

1945. *Mustela erminea semplei* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 179, July 13, 1945.

Type Locality.—Coral Inlet, South Bay, Southampton Island, Hudson Bay, Keewatin District, Canada. *Range.*—Baffin and Southampton islands, Melville Peninsula and west side of Hudson Bay as far south as Eskimo Point (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 106, Dec. 27, 1951).

Mustela erminea kadiacensis (Merriam) †*

1896. *Putorius arcticus kadiacensis* Merriam, North Amer. Fauna No. 11, p. 16, June 30, 1896.

1945. *Mustela erminea kadiacensis* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 179, July 13, 1945.

Type Locality.—Kodiak Island, Alaska. *Range.*—Kodiak Island.

Mustela erminea richardsonii Bonaparte*

1838. *Mustela richardsonii* Bonaparte, Mag. Nat. Hist., vol. 2, p. 38, January 1838.

1903. *Putorius microtis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 563, Oct. 10, 1903. (Shesley, British Columbia.)

1904 *Putorius arcticus imperii* Barrett-Hamilton, Ann. Mag. Nat. Hist., ser. 7, vol. 13, p. 392, May 1904. (Fort Simpson, Mackenzie, Canada. See Preble, North Amer. Fauna No. 27, p. 232, Oct. 26, 1908.)

1912. *Mustela cicognanii richardsonii* Miller, U. S. Nat. Mus. Bull. 79, p. 95, Dec. 31, 1912.

1913. *Mustela cicognanii mortigena* Bangs, Bull. Mus. Comp. Zool., vol. 54, p. 511, July 1913. (Bay St. George, Newfoundland.)

1945. *Mustela erminea richardsonii* Hall, Journ. Mamm., vol. 26, No. 1, p. 77, Feb. 27, 1945.

Type Locality.—Fort Franklin, Great Bear Lake, Mackenzie District, Canada. *Range.*—Hudsonian timber belt from southern Yukon, central Mackenzie, Great Bear and Great Slave Lakes, east to Hudson Bay at about lat. 60° N., coasts of Hudson and James Bays, Ungava and Labrador coast, east to Newfoundland, Nova Scotia, and New Brunswick, south to central Quebec, central Ontario, central Manitoba, Saskatchewan, and Alberta, west to Pacific coast of British Columbia (except southwestern corner) and Alaska–British Columbia boundary to Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 63, Jan. 24, 1947).

Mustela erminea cicognanii Bonaparte*

1838. *M[ustela] cigognanii* [sic] Bonaparte, Mag. Nat. Hist., vol. 2, p. 37, January 1838.

1842. *Mustela pusilla* DeKay, Zoology of New York, . . . , vol. 1, pt. 1 (Mammalia), p. 34 (*in* [New York State], Natural history of New York).

1884. *Putorius vulgaris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884. (Part.)

1912 *Mustela cicognanii cicognanii* Miller, U. S. Nat. Mus. Bull. 79, p. 95, Dec. 31, 1912.

1945. *Mustela erminea cicognanii* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 180, July 13, 1945.

Type Locality.—Eastern United States. *Range.*—Transition and higher Life Zones of northeastern United States south to Connecticut, central Pennsylvania, and extreme northeastern Ohio; in Quebec and Ontario westward from latitude of central Maine to Lake Nipigon and Lake of the Woods (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 119, Dec. 27, 1951).

Mustela erminea bangsi Hall*

1945. *Mustela erminea bangsi* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 176, July 13, 1945.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—Southern Manitoba, northeastern North Dakota, the whole of Minnesota, Wisconsin and Michigan, and northern Iowa.

Mustela erminea invicta Hall*

1945. *Mustela erminea invicta* Hall, Journ. Mamm., vol. 26, No. 1, p. 75, Feb. 23, 1945.

Type Locality.—Benewah, Benewah County, Idaho. *Range.*—Central Rocky Mountain region from Jasper Park south over Alberta, southeastern British Columbia, Washington east of Cascades, north and central Idaho, and northwestern Montana.

Mustela erminea alascensis (Merriam)†*

1896. *Putorius richardsoni alascensis* Merriam, North Amer. Fauna No. 11, p. 12, June 30, 1896.

1912. *Mustela cicognanii alascensis* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912.

1944. *Mustela erminea alascensis* Hall, Proc. Biol. Soc. Washington, vol. 57, p. 36, June 28, 1944; Journ. Mamm., vol. 26, No. 2 (May), p. 180, July 13, 1945.

Type Locality.—Juneau, Alaska. *Range.*—Mainland of southeastern Alaska from Lynn Canal south to include Mitkof, Zarembo, and Revillagigedo Islands (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 132, Dec. 27, 1951).

Mustela erminea salva Hall*

1944. *Mustela erminea salva* Hall, Proc. Biol. Soc. Washington, vol. 57, p. 35, June 28, 1944.

Type Locality.—Mole Harbor, Admiralty Island, Alaska. *Range.*—Admiralty Island.

Mustela erminea initis Hall

1944. *Mustela erminea initis* Hall, Proc. Biol. Soc. Washington, vol. 57, p. 37, June 28, 1944.

Type Locality.—Saook Bay, Baranof Island, Alaska. *Range.*—Chichagof and Baranof Islands.

Mustela erminea celenda Hall†*

1944. *Mustela erminea celenda* Hall, Proc. Biol. Soc. Washington, vol. 57, p. 38, June 28, 1944.

Type Locality.—Kasaan Bay, Prince of Wales Island, Alaska. *Range.*—Prince of Wales, Dall, and Long Islands, Alaska.

Mustela erminea seclusa Hall

1944. *Mustela erminea seclusa* Hall, Proc. Biol. Soc. Washington, vol. 57, p. 39, June 28, 1944.

Type Locality.—Santa Cruz, Suemez Island, Alaska. *Range.*—Known from type locality only.

Mustela erminea haidarum (Preble)†*

1898. *Putorius haidarum* Preble, Proc. Biol. Soc. Washington, vol. 12, p. 169, Aug. 10, 1898.

1912. *Mustela haidarum* Miller, U. S. Nat. Mus. Bull. 79, p. 97, Dec. 31, 1912.

1944. *Mustela erminea haidarum* Hall, Proc. Biol. Soc. Washington, vol. 57, p. 38, June 28, 1944; Journ. Mamm., vol. 26, No. 2 (May), p. 181, July 13, 1945.

Type Locality.—Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Queen Charlotte Islands.

Mustela erminea anguinae Hall

1932. *Mustela cicognanii anguinae* Hall, Univ. California Publ. Zool., vol. 38, No. 12, p. 417, Nov. 8, 1932.

1945. *Mustela erminea anguinae* Hall, Journ. Mamm., vol. 26, No. 2 (May), p. 181, July 13, 1945.

Type Locality.—French Creek, Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island.

Mustela erminea fallenda Hall*

1945. *Mustela erminea fallenda* Hall, Journ. Mamm., vol. 26, No. 1, p. 79, Feb. 23, 1945.

Type Locality.—Huntingdon, British Columbia. *Range.*—On mainland in immediate vicinity of coast from probably opposite Texada Island, British Columbia, south to Lake Whatcom, Wash., and east to Mount Baker Range on international boundary.

Mustela erminea olympica Hall*

1945. *Mustela erminea olympica* Hall, Journ. Mamm., vol. 26, No. 1, p. 81, Feb. 23, 1945.

Type Locality.—Near head of Soleduck River, Olympic Mountains, Clallam County, Wash. Altitude, 4,500 feet. *Range.*—Olympic Peninsula, Wash., south to Olympia.

Mustela erminea streatori (Merriam) †*

1896. *Putorius streatori* Merriam, North Amer. Fauna No. 11, p. 13, June 30, 1896.

1912. *Mustela streatori streatori* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912.

1945. *Mustela erminea streatori* Hall, Journ. Mamm., vol. 26, No. 1, p. 77, Feb. 27, 1945.

Type Locality.—Mount Vernon, Skagit Valley, Skagit County, Wash. *Range.*—Western Washington along eastern side of Puget Sound, western Oregon from Cascades to coast, and northwestern California south in humid coastal district nearly to Golden Gate.

Mustela erminea gulosa Hall†*

1945. *Mustela erminea gulosa* Hall, Journ. Mamm., vol. 26, No. 1, p. 84, Feb. 23, 1945.

Type Locality.—Trout Lake, Klickitat County, Wash. *Range.*—Cascades from northeastern King County south to Mount Adams.

Mustela erminea muricus (Bangs) *

1899. *Putorius* (*Arctogale*) *muricus* Bangs, Proc. New England Zool. Club, vol. 1, p. 71, July 31, 1899.

1912. *Mustela muricus* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912.

1903. *Putorius streatori leptus* Merriam†, Proc. Biol. Soc. Washington, vol. 16, p. 76, May 29, 1903. (Silverton, San Juan County, Colo.)

1912. *Mustela streatori leptus* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912.

1945. *Mustela erminea murica* Hall, Journ. Mamm., vol. 26, No. 1, p. 84, Feb. 27, 1945.

Type Locality.—Echo, El Dorado County, Calif. Altitude, 7,500 feet. *Range.*—Near 5,300 feet (Denver) to 11,000 feet (Santa Fe Baldy); typically Boreal but taken in Upper Sonoran Zone in winter at Denver; from central and southwestern Montana, southern Idaho, and Blue Mountains of southeastern Washington southward east of Cascade Divide through Salmon River Mountains and Sierra Nevada at least into Fresno County, Calif., in Great Basin to central Nevada, in Rocky Mountains into northern New Mexico; eastward to Black Hills (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 162, Dec.27, 1951).

Mustela rixosa rixosa (Bangs) *

1896. *Putorius rixosus* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 21, Feb. 25, 1896.

1911. *M*[*ustela*] *rixosa* Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 168, Mar. 22, 1911.

1912. *Mustela rixosa rixosa* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912. (See also Swenk, Journ. Mamm., vol. 7, No. 4, p. 327, Nov. 23, 1926.)

Type Locality.—Osler, Saskatchewan, Canada. *Range.*—From northern British Columbia and Great Slave Lake south on west side of Rocky Mountains to Ootsa Lake, British Columbia, and on east side of Rocky Mountains, south to central Montana, North Dakota, and Minnesota; eastward in Canada, entirely north of St. Lawrence River, to Atlantic Ocean (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 184, Dec. 27, 1951). Recorded also from eastern South Dakota (Schantz, Journ. Mamm., vol. 32, No. 2, p. 227, May 21, 1951).

Mustela rixosa allegheniensis (Rhoads) *

1901. *Putorius allegheniensis* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 751, Mar. 25, 1901.

1907. *Putorius rixosus allegheniensis* Ward, Bull. Wisconsin Nat. Hist. Soc., vol. 5, p. 64, January 1907.

1912. *Mustela allegheniensis* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912.

1926. *Mustela rixosa allegheniensis* Swenk, Journ. Mamm., vol. 7, No. 4, p. 328, Nov. 23, 1926.

Type Locality.—Near Beallsville, Washington County, Pa. *Range.*—Wisconsin, northern Illinois, northern Indiana, Michigan, Ohio, Pennsylvania east to Dauphin County and south in mountains to northwestern North Carolina (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 187, Dec. 27, 1951).

Mustela rixosa eskimo (Stone) *

1900. *Putorius rixosus eskimo* Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 44, Mar. 24, 1900.

1912. *Mustela rixosa eskimo* Miller, U. S. Nat. Mus. Bull. 79, p. 96, Dec. 31, 1912. (See also Swenk, Journ. Mamm., vol. 7, No. 4, p. 327, Nov. 23, 1926.)

Type Locality.—Point Barrow, Alaska. *Range.*—Alaska and Yukon Territory, Canada (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 181, Dec. 27, 1951).

Mustela rixosa campestris Jackson†*

1913. *Mustela campestris* Jackson, Proc. Biol. Soc. Washington, vol. 26, p. 124, May 21, 1913.

1926. *Mustela rixosa campestris* Swenk, Journ. Mamm., vol. 7, No. 4, p. 329, Nov. 23, 1926.

Type Locality.—Beemer, Cuming County, Nebr. *Range.*—South Dakota, Nebraska, and Iowa (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 191, Dec. 27, 1951).

Mustela frenata frenata Lichtenstein*

1831. *Mustela frenata* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere . . . , pl. 42.

1884. *Putorius brasiliensis frenatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part).

1912. *Mustela frenata frenata* Miller, U. S. Nat. Mus. Bull. 79, p. 99, Dec. 31, 1912.

1936. *Mustela frenata frenata* Strecker, Baylor Bull., vol. 27, p. 12, August 1926.—Hall, Carnegie Inst. Washington Publ. 473, p. 108, Nov. 20, 1936.

Type Locality.—Valley of México, near city of México, México. *Range.*—Sea level (Brownsville, Tex.) to 7,600 feet (Tlalpan, México); from southern Texas as far south as city of México; zonal range, Lower Sonoran to at least Transition (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 341, Dec. 27, 1951).

Mustela frenata leucoparia (Merriam)†*

1896. *Putorius frenatus leucoparia* Merriam, North Amer. Fauna No. 11, p. 29, June 30, 1896.

1912. *Mustela frenata leucoparia* Miller, U. S. Nat. Mus. Bull. 79, p. 100, Dec. 31, 1912.

Type Locality.—Pátzcuaro, Michoacán, México. *Range.*—Sonoran and Transition Zones of mountains west of city of México in Michoacán and Nayarit (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 348, Dec. 27, 1951).

Mustela frenata perotae Hall†*

1936. *Mustela frenata perotae* Hall, Carnegie Inst. Washington Publ. 473, p. 100, Nov. 20, 1936.

Type Locality.—Cofre de Perote at elevation of 12,500 feet, Veracruz, México. *Range.*—From 7,500 (?) feet (Perote) to 13,500 feet (Popocatepetl); Upper Sonoran, Transition, and Boreal Zones of mountains along Puebla–México boundary, eastward to western central Veracruz and south into Oaxaca (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 351, Dec. 27, 1951).

Mustela frenata macrophonius (Elliot)*

1905. *Putorius macrophonius* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 235, Dec. 9, 1905.

1936. *Mustela frenata macrophonius* Hall, Carnegie Inst. Washington Publ. 473, p. 109, Nov. 20, 1936.

Type Locality.—Achotal, Veracruz, México. *Range.*—Tropical Zone, and probably into Boreal Zones, of mountains along eastern border of southern Veracruz, México (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 361, Dec. 27, 1951).

Mustela frenata goldmani (Merriam)†*

1896. *Putorius frenatus goldmani* Merriam, North Amer. Fauna No. 11, p. 28, June 30, 1896.

1912. *Mustela frenata goldmani* Miller, U. S. Nat. Mus. Bull. 79, p. 100, Dec. 31, 1912.

Type Locality.—Pinabete, Chiapas, México. Altitude, about 8,200 feet. *Range.*—From 2,500 feet (El Cipres, Guatemala) to 9,500 feet (near Tecpan, Guatemala); Upper Tropical Zone of mountains and western coasts of southern México, Guatemala and El Salvador (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 355, Dec. 27, 1951).

Mustela frenata tropicalis (Merriam)†*

1896. *Putorius tropicalis* Merriam, North Amer. Fauna No. 11, p. 30, June 30, 1896.

1936. *Mustela frenata tropicalis* Hall, Carnegie Inst. Washington Publ. 473, p. 109, Nov. 20, 1936.

Type Locality.—Jico, Veracruz, México. Altitude, 6,000 feet. *Range.*—Up to 5,000 feet (as now known) in Tropical Zone of Veracruz (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 363, Dec. 27, 1951).

Mustela frenata perda (Merriam)†*

1902. *Putorius tropicalis perdus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 67, Mar. 22, 1902.

1936. *Mustela frenata perda* Hall, Carnegie Inst. Washington Publ. 473, p. 109, Nov. 20, 1936.

Type Locality.—Teapa, Tabasco, México. *Range.*—From 50 feet (Chichén-Itzá) to 4,000 feet (San Vicente) in Lower Tropical Zone south from southern Veracruz through southern México into Guatemala (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 367, Dec. 27, 1951).

Mustela frenata nicaraguae J. A. Allen

1916. *Mustela tropicalis nicaraguae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 35, p. 100, Apr. 28, 1916.

1936. *Mustela frenata nicaraguae* Hall, Carnegie Inst. Washington Publ. 473, p. 109, Nov. 20, 1936.

Type Locality.—Matagalpa, Matagalpa, Nicaragua. *Range.*—Honduras and Nicaragua (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 370, Dec. 27, 1951).

Mustela frenata costaricensis Goldman†*

1884. *Putorius brasiliensis aequatorialis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1912. *Mustela costaricensis* Goldman, Proc. Biol. Soc. Washington, vol. 25, p. 9, Jan. 23, 1912.

1936. *Mustela frenata costaricensis* Hall, Carnegie Inst. Washington Publ. 473, p. 109, Nov. 20, 1936.

Type Locality.—San José, San José, Costa Rica. *Range.*—Costa Rica.

Mustela frenata panamensis Hall†*

1932. *Mustela frenata panamensis* Hall, Proc. Biol. Soc. Washington, vol. 45, p. 139, Sept. 9, 1932.

Type Locality.—Río Indio near Gatún, Canal Zone, Panamá. *Range.*—Sea level to 5,800 feet (Bóquete), Panamá. Zonal range, Upper and Lower Tropical.

Mustela frenata texensis Hall

1936. *Mustela frenata texensis* Hall, Carnegie Inst. Washington Publ. 473, p. 99, Nov. 30, 1936.

Type Locality.—Kerr County, Tex. *Range.*—Lower and possibly Upper Sonoran Zones of central Texas.

Mustela frenata neomexicana (Barber and Cockerell) *

1898. *Putorius frenatus neomexicanus* Barber and Cockerell, Proc. Acad. Nat. Sci. Philadelphia, vol. 50, p. 188, May 3, 1898.

1912. *Mustela frenata neomexicana* Miller, U. S. Nat. Mus. Bull. 79, p. 100, Dec. 31, 1912.

Type Locality.—Armstrongs Lake, Mesilla Valley, Dona Ana County, N. Mex. *Range.*—From 3,800 feet (type locality) to 9,000 feet (Cloudcroft, N. Mex.); Upper and Lower Sonoran Zones of northern México, southeastern Arizona, New Mexico, and western Texas, Panhandle of Oklahoma, southeastern Colorado, and southwestern Kansas (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 334, Dec. 27, 1951).

Mustela frenata arizonensis (Mearns) *

1891. *Putorius arizonensis* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 234, June 5, 1891.

1936. *Mustela frenata arizonensis* Hall, Carnegie Inst. Washington Publ. 473, p. 106, Nov. 20, 1936.

Type Locality.—San Francisco Forest, Yavapai County, Ariz. *Range.*—Transition to Hudsonian Zones of Arizona, and extreme western New Mexico, along Colorado River and south of Little Colorado, from San Francisco Mountain region along Mogollon Plateau to extreme western New Mexico.

Mustela frenata inyoensis Hall*

1936. *Mustela frenata inyoensis* Hall, Carnegie Inst. Washington Publ. 473, p. 99, Nov. 20, 1936.

Type Locality.—Carl Walter's Ranch, 2 miles north of Independence, Inyo County, Calif. *Range.*—From 3,700 feet (Lone Pine) to at least 4,000 feet (Alvord) in Lower Sonoran Zone on floor of Owens Valley, Inyo County, Calif.

Mustela frenata pulchra Hall*

1936. *Mustela frenata pulchra* Hall, Carnegie Inst. Washington Publ. 473, p. 98, Nov. 20, 1936.

Type Locality.—Buttonwillow, Kern County, Calif. *Range.*—From around 300 feet in San Joaquin Valley to 2,500 feet at Isabella; Upper and Lower Sonoran Zones of southern end of San Joaquin Valley and in mountains at southern end of Valley, Calif. (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 328, Dec. 27, 1951).

Mustela frenata latirostra Hall*

1936. *Mustela frenata latirostra* Hall, Carnegie Inst. Washington Publ. 473, p. 96, Nov. 20, 1936.

Type Locality.—San Diego, San Diego County, Calif. *Range.*—Sea level to 8,000 feet (Tahquitz Valley, San Jacinto Mountains) in Sonoran and Transition Zones of coast, and in mountains, west of Mojave and Imperial Deserts of southern California, from Point Conception and Cuyama Valley southward to Mexican boundary.

Mustela frenata nigriauris Hall*

1936. *Mustela frenata nigriauris* Hall, Carnegie Inst. Washington Publ. 473, p. 95, Nov. 20, 1936.

Type Locality.—Two and one-half miles east of Santa Cruz, Santa Cruz County, Calif. *Range.*—Sea level to more than 4,000 feet; Sonoran and Transition Zones of Coast Range and coast of California from San Francisco Bay south to Point Conception, Santa Barbara County, Calif. (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 320, Dec. 27, 1951).

Mustela frenata xanthogenys Gray*

1843. *Mustela xanthogenys* Gray, Ann. Mag. Nat. Hist., vol. 11, p. 118, February 1843.

1936. *Mustela frenata xanthogenys* Hall, Carnegie Inst. Washington Publ. 473, p. 107, Nov. 20, 1936.

Type Locality.—Probably Sacramento River, below junction with Feather River, Sacramento County, Calif. *Range.*—Vertical range, less than 600 feet (Fair Oaks); Lower and Upper Sonoran Zones of all but southern end of San Joaquin Valley, and probably Sacramento Valley, Calif. (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, pp. 315–316, Dec. 27, 1951).

Mustela frenata munda (Bangs)*

1899. *Putorius xanthogenys mundus* Bangs, Proc. New England Zool. Club, vol. 1, p. 56, June 9, 1899.

1936. *Mustela frenata munda* Hall, Carnegie Inst. Washington Publ. 473, p. 107, Nov. 20, 1936.

Type Locality.—Point Reyes, Marin County, Calif. *Range.*—Sea level to at least 6,000 feet (South Yolla Bolly Mountain, Trinity County); Upper Sonoran and Transition Zones of the coast and Coast Range of northwestern California from Golden Gate northward into southern Humboldt and Trinity Counties.

Mustela frenata oregonensis (Merriam)†*

1896. *Putorius xanthogenys oregonensis* Merriam, North Amer. Fauna No. 11, p. 25, June 30, 1896.

1936. *Mustela frenata oregonensis* Hall, Carnegie Inst. Washington Publ. 473, p. 107, Nov. 20, 1936.

Type Locality.—Grants Pass, Rogue River Valley, Josephine County, Oreg. *Range.*—Transition and Canadian Zones along coast of northern California and southern Oregon from Humboldt County, Calif., north through Curry County, Oreg., thence inland, west of Cascades, north to Columbia River.

Mustela frenata saturata (Merriam)†*

1896. *Putorius saturatus* Merriam, North Amer. Fauna No. 11, p. 21, June 30, 1896.

1936. *Mustela frenata saturata* Hall, Carnegie Inst. Washington Publ. 473, p. 106, Nov. 20, 1936.

Type Locality.—Siskiyou, Jackson County, Oreg. Altitude, 4,000 feet. *Range.*—Transition and Boreal Zones of Siskiyou and Trinity Mountains in southern Oregon and northwestern California.

Mustela frenata altifrontalis Hall*

1936. *Mustela frenata altifrontalis* Hall, Carnegie Inst. Washington Publ. 473, p. 94, Nov. 20, 1936.

Type Locality.—Tillamook, Tillamook County, Oreg. *Range.*—Sea level up to at least 4,800 feet (Mount Baker) in Transition Zone of humid, coastal region of Oregon, Washington, and extreme southwestern British Columbia (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 300, Dec. 27, 1951).

Mustela frenata washingtoni (Merriam)†*

1896. *Putorius washingtoni* Merriam, North Amer. Fauna No. 11, p. 18, June 30, 1896.

1936. *Mustela frenata washingtoni* Hall, Carnegie Inst. Washington Publ. 473, p. 106, Nov. 20, 1936.

Type Locality.—Trout Lake, south base of Mount Adams, Skamania County, Wash. *Range.*—From near 2,000 feet at Trout Lake up to highest parts of Cascade Range from Mount Jefferson, Oreg., north to Mount Rainier, Wash. Zonal range, Upper Sonoran to Arctic-Alpine.

Mustela frenata effera Hall*

1936. *Mustela frenata effera* Hall, Carnegie Inst. Washington Publ. 473, p. 93, Nov. 20, 1936.

Type Locality.—Ironside, 4,000 feet, Malheur County, Oreg. *Range.*—Upper Sonoran to Arctic–Alpine Zones of northern two-thirds of Oregon east of Cascades and southeastern Washington, south of Snake River.

Mustela frenata nevadensis Hall*

1936. *Mustela frenata nevadensis* Hall, Carnegie Inst. Washington Publ. 473, p. 91, Nov. 20, 1936.

Type Locality.—Three miles east of Baker, White Pine County, Nev. *Range.*—Southern British Columbia in Cascades and territory west to Monashee Mountains, and Nelson, southward in Cascades of northern Washington, over eastern Washington, Idaho, Utah, and Nevada to northeastern Arizona and northern New Mexico; westward from eastern base of Rocky Mountains in Colorado to western base of Sierra Nevada and Cascades of California and to Cascades of southern Oregon; vertical range, from 700 feet at Wenatchee, Wash., to highest parts of mountains of western United States; zonal range, Upper Sonoran to Arctic-Alpine (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 280, Dec. 27, 1951).

Mustela frenata oribasus (Bangs)*

1899. *Putorius* (*Arctogale*) *longicauda oribasus* Bangs, Proc. New England Zool. Club, vol. 1, p. 81, Dec. 27, 1899.

1936. *Mustela frenata oribasa* Hall, Carnegie Inst. Washington Publ. 473, p. 105, Nov. 20, 1936.

Type Locality.—Source of Kettle River [the summit between middle fork of Kettle River and Cherry Creek at Pinnacles], British Columbia, Canada. Altitude, 7,500 feet. *Range.*—Canadian and Hudsonian Zones from near lat. 56° N. in Rocky Mountains of British Columbia and Alberta and Ootsa Lake along Fraser and Chilcotin Rivers south to Alta Lake, in Caribou and Monashee Mountains, probably in Selkirks and Rockies, and through Rocky Mountains of Montana into extreme northern Wyoming (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 270, Dec. 27, 1951).

Mustela frenata longicauda Bonaparte*

1838. *Mustela longicauda* Bonaparte, Mag. Nat. Hist., vol. 2, p. 38, January 1838.

1884. *Putorius longicauda* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

1936. *Mustela frenata longicauda* Hall, Carnegie Inst. Washington Publ. 473, p. 105, Nov. 20, 1936.

Type Locality.—Carlton House, on North Saskatchewan River, Saskatchewan, Canada. *Range.*—Transition and Upper Sonoran Zones of Great Plains, southward from central Alberta, Saskatchewan, and southern Manitoba through eastern Montana, the Dakotas, and Nebraska, into southeastern Wyoming, northeastern Colorado, and western Kansas (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 263, Dec. 27, 1951).

Mustela frenata alleni (Merriam)†*

1896. *Putorius alleni* Merriam, North Amer. Fauna No. 11, p. 24, June 30, 1896.

1936. *Mustela frenata alleni* Hall, Carnegie Inst. Washington Publ. 473, p. 106, Nov. 20, 1936.

Type Locality.—Custer, Black Hills, Custer County, S. Dak. *Range.*—Canadian, Transition, and Upper Sonoran Zones of Black Hills of South Dakota and adjacent semi-badland territory of Wyoming and Nebraska southward to Mitchell, Scotts Bluff County (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 274, Dec. 27, 1951).

Mustela frenata spadix (Bangs) *

1896. *Putorius longicauda spadix* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 8, Feb. 25, 1896.

1936. *Mustela frenata spadix* Hall, Carnegie Inst. Washington Publ. 473, p. 105, Nov. 20, 1936.

Type Locality.—Fort Snelling, Hennepin County, Minn. *Range.*—Upper Austral and Transition Zones of Minnesota, northern and western Iowa, southeastern North Dakota, eastern part of South Dakota, and northeastern Nebraska.

Mustela frenata noveboracensis (Emmons) *

1840. *Putorius noveboracensis* Emmons, A report on the quadrupeds of Massachusetts, p. 45 (*in* Rep. of Comm. on Zool. Surv. of State).

1884. *Putorius erminea* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884. (Part.)

1896. *Putorius noveboracensis* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 13, Feb. 25, 1896.

1899. *Putorius noveboracensis notius* Bangs, Proc. New England Zool. Club, vol. 1, p. 53, June 9, 1899. (Weaverville, Buncombe County, N. C.)

1936. *Mustela frenata noveboracensis* Hall, Carnegie Inst. Washington Publ. 473, p. 104, Nov. 20, 1936.

Type Locality.—Williamstown, Berkshire County, Mass. *Range.*—Sea level to highest parts of mountains of eastern United States; Canadian Zone of Ontario and Quebec southward through eastern United States in Canadian, Transition, and Upper Austral Zones to and including upper edge of Lower Austral Zone in Carolinas and northern parts of Georgia, Alabama and Mississippi; westward from Atlantic coast to St. Croix and Mississippi Rivers.

Mustela frenata occisor (Bangs) *

1899. *Putorius occisor* Bangs, Proc. New England Zool. Club, vol. 1, p. 54, June 9, 1899.

1936. *Mustela frenata occisor* Hall, Carnegie Inst. Washington Publ. 473, p. 104, Nov. 20, 1936.

Type Locality.—Bucksport, near mouth of Penobscot River, Hancock County, Maine. *Range.*—Maine; possibly north locally to south side of St. Lawrence River in Quebec and possibly occurring in western New Brunswick; zonal range, Canadian and probably Transition (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 230, Dec. 27, 1951).

Mustela frenata primulina Jackson†*

1913. *Mustela primulina* Jackson, Proc. Biol. Soc. Washington, vol. 26, p. 123, May 21, 1913.

1936. *Mustela frenata primulina* Hall, Carnegie Inst. Washington Publ. 473, p. 104, Nov. 20, 1936.

Type Locality.—Five miles northeast of Avilla, Jasper County, Mo. *Range.*—Upper and Lower Austral Zones west of Mississippi River in Missouri and Arkansas, eastern and southern Iowa, eastern half of Kansas and Oklahoma, northern Louisiana, and northeastern Texas; southern and southwestern limits of range undetermined (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 233, Dec. 27, 1951).

Mustela frenata arthuri Hall*

1927. *Mustela noveboracensis arthuri* Hall, Proc. Biol. Soc. Washington, vol. 40, p. 193, Dec. 2, 1927.

1936. *Mustela frenata arthuri* Hall, Carnegie Inst. Washington Publ. 473, p. 105, Nov. 20, 1936.

Type Locality.—Remy, St. James Parish, La. *Range.*—Lower Austral Zone of southeastern Texas, Louisiana, and into Mississippi (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 241, Dec. 27, 1951).

Mustela frenata olivacea A. H. Howell†*

1913. *Mustela peninsulae olivacea* A. H. Howell, Proc. Biol. Soc. Washington, vol. 26, p. 139, May 21, 1913.

1936. *Mustela frenata olivacea* Hall, Carnegie Inst. Washington Publ. 473, p. 105, Nov. 20, 1936.

Type Locality.—Autaugaville, Autauga County, Ala. *Range.*—Lower and Upper Austral Zones in eastern Mississippi, Alabama, Georgia, South Carolina, and northern Florida.

Mustela frenata peninsulae (Rhoads)*

1894. *Putorius peninsulae* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 46, p. 152, June 19, 1894.

1936. *Mustela frenata peninsulae* Hall, Carnegie Inst. Washington Publ. 473, p. 105, Nov. 20, 1936.

Type Locality.—Hudson, Pasco County [14 miles north of Tarpon Springs, Pinellas County], Fla. *Range.*—Austral and probably Tropical Zones of Florida south of lat. 29° N. (Hall, Univ. Kansas Publ. Mus. Nat. Hist., vol. 4, p. 250, Dec. 27, 1951).

Subgenus LUTREOLA[93] Wagner (minks)

1841. *Lutreola* Wagner, *in* Schreber, Die Säugthiere . . . , Suppl., vol. 2, p. 239. (Type, *Mustela lutreola* Linnaeus.)

Mustela vison vison Schreber*

1777. *Mustela vison* Schreber, Die Säugthiere . . . , Theil 3, Heft 25, pl. 127b.

1884. *Putorius vison* True, Proc. U. S. Nat. Mus., vol. 7 (App. Circ. 29), p. 609, Nov. 29, 1884. (Part.)

1911. *Lutreola vison borealis* Brass, Aus dem Reiche der Pelze, p. 504, April 1911. (Northeastern North America.)

1912. *Mustela vison vison* Miller, U. S. Nat. Mus. Bull. 79, p. 101, Dec. 31, 1912.

Type Locality.—Eastern Canada (= Province of Quebec). *Range.*—Eastern Canada, west to eastern and southern Ontario; south in interior to Catskill Mountains, N. Y., and to northern Pennsylvania. Not found on the coast south of New Brunswick.

Mustela vison lowii R. M. Anderson

1945. *Mustela vison lowii* R. M. Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1944, p. 57, Nov. 2, 1945.

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[93] Revised by Hollister, Proc. U. S. Nat. Mus., vol. 44, pp. 471–480, Apr. 18, 1913.

Type Locality.—Mistassini Post, Mistassini Lake, Mistassini District, Quebec, Canada, about 215 miles east of Rupert House, James Bay, Quebec, Canada. *Range.*—Northern Labrador and northern Quebec in wooded districts from Chimo near southern end of Ungava Bay south to Lake Mistassini and Lake Waswanipi southeast of James Bay.

Mustela vison mink Peale and Palisot de Beauvois*

1796. *Mustela mink* Peale and Palisot de Beauvois, A scientific and descriptive catalogue of Peale's museum, Philadelphia, p. 39.

1896. *Putorius vison lutreocephalus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 27, p. 4, March 1896.

1914. *Mustela vison mink* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 215, Oct. 31, 1914.

Type Locality.—Maryland. *Range.*—Eastern United States, from coast of New England south to North Carolina, and, in the interior, to central Georgia and Alabama; westward through southern Pennsylvania and Ohio to Missouri and northeastern Texas.

Mustela vison lutensis (Bangs)*

1898. *Putorius* (*Lutreola*) *lutensis* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 229, March 1898.

1913. *Mustela vison lutensis* Hollister, Proc. U. S. Nat. Mus., vol. 44, p. 474, Apr. 18, 1913.

Type Locality.—Salt marsh off Matanzas Inlet, St. Johns County, Fla. *Range.*—Coast of southeastern United States from South Carolina to Florida.

Mustela vison evergladensis Hamilton

1948. *Mustela vison evergladensis* Hamilton, Proc. Biol. Soc. Washington, vol. 61, p. 139, Sept. 3, 1948.

Type Locality.—Tamiami Trail (U. S. Route 41), 5 miles southeast of Royal Palm Hammock, Collier County, Fla. *Range.*—Unknown, but presumably cypress and mangrove swamps of Florida Everglades and Ten Thousand Islands.

Mustela vison vulgivaga (Bangs)*

1895. *Putorius* (*Lutreola*) *vulgivagus* Bangs, Proc. Boston Soc. Nat. Hist., vol. 26, p. 539, July 31, 1895.

1912. *Mustela vison vulgivaga* Miller, U. S. Nat. Mus. Bull 79, p. 102, Dec. 31, 1912.

Type Locality.—Burbridge, Plaquemines Parish, La. *Range.*—Coast of Louisiana and Mississippi. North in Mississippi River bottoms to northern Louisiana.

Mustela vison letifera Hollister†*

1913. *Mustela vison letifera* Hollister, Proc. U. S. Nat. Mus., vol. 44, p. 475, Apr. 18, 1913.

Type Locality.—Elk River, Sherburne County, Minn. *Range.*—From northern Wisconsin and northern South Dakota south to northern Illinois, northern Missouri, and southern Kansas.

Mustela vison lacustris (Preble)†*

1902. *Lutreola vison lacustris* Preble, North Amer. Fauna No. 22, p. 66, Oct. 31, 1902.

1912. *Mustela vison lacustris* Miller, U. S. Nat. Mus. Bull. 79, p. 101, Dec. 31, 1912.

Type Locality.—Echimamish River (near Painted Stone portage), Manitoba, Canada. *Range.*—Interior of Canada from western shores of Hudson Bay northwest through wooded parts of Keewatin and Mackenzie Districts to Great Slave Lake, and southward through Alberta (Wood Buffalo Park), probably northeastern corner of British Columbia, Saskatchewan, and Manitoba to southern North Dakota (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 67, Jan. 24, 1947).

Mustela vison energumenos (Bangs) *

1896. *Putorius vison energumenos* Bangs, Proc. Boston Soc. Nat. Hist., vol. 27, p. 5, March 1896.

1912. *Mustela vison energumenos* Miller, U. S. Nat. Mus. Bull. 79, p. 101, Dec. 31, 1912.

Type Locality.—Sumas, British Columbia, Canada. *Range.*—Western North America, from southern Yukon and northern British Columbia south to Columbia River, northeastern Nevada, Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 419, Aug. 10, 1952), and in Rocky Mountains to New Mexico.

Mustela vison aestuarina Grinnell*

1916. *Mustela vison aestuarina* Grinnell, Proc. Biol. Soc. Washington, vol. 29, p. 213, Sept. 22, 1916.

Type Locality.—Grizzly Island, Solano County, Calif. *Range.*—Oregon; western Nevada, in lakes and along streams flowing eastward from the Sierra Nevada, from Truckee River south to Walker River (Hall, Mammals of Nevada, p. 194, July 1, 1946); streams and marshes of northern half of California, south along coast nearly to north side of San Francisco Bay, southward throughout marshes adjacent to mouths of Sacramento and San Joaquin Rivers through San Joaquin Valley to neighborhood of Mendota, Fresno County, and south along Sierra Nevada, on west side to Tulare County and on east side, in Owens Valley, Inyo County, to near Big Pine (Grinnell, Dixon, and Linsdale, The furbearing mammals of California, vol. 1, p. 240, Aug. 10, 1937).

Mustela vison nesolestes (Heller) *

1909. *Lutreola vison nesolestes* Heller, Univ. California Publ. Zool., vol. 5, No. 2, p. 259, Feb. 18, 1909.

1912. *Mustela vison nesolestes* Miller, U. S. Nat. Mus. Bull. 79, p. 102, Dec. 31, 1912.

Type Locality.—Windfall Harbor, Admiralty Island, Alaska. *Range.*—Alexander Archipelago, Alaska.

Mustela vison evagor Hall*

1932. *Mustela vison evagor* Hall, Univ. California Publ. Zool., vol. 38, No. 12, p. 418, Nov. 8, 1932.

Type Locality.—Little Qualicum River, 8 or 9 miles west of Parksville, Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island.

Mustela vison melampeplus (Elliot) *

1903. *Putorius vison melampeplus* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 170, May 7, 1903.

1912. *Mustela vison melampeplus* Miller, U. S. Nat. Mus. Bull. 79, p. 102, Dec. 31, 1912.

Type Locality.—Kenai Peninsula, Alaska. *Range.*—Kenai Peninsula and Cook Inlet region, Alaska.

Mustela vison ingens (Osgood) †*

1900. *Lutreola vison ingens* Osgood, North Amer. Fauna No. 19, p. 42, Oct. 6, 1900.

1912. *Mustela vison ingens* Miller, U. S. Nat. Mus. Bull. 79, p. 101, Dec. 31, 1912.

Type Locality.—Fort Yukon, Alaska. *Range.*—Northern, western, and central Alaska; northern Yukon and northwestern Mackenzie; south to Alaska Peninsula and to Fort Good Hope, Mackenzie; east to Anderson River.

Mustela macrodon (Prentiss) †*

1903. *Lutreola macrodon* Prentiss, Proc. U. S. Nat. Mus., vol. 26, p. 887, July 6, 1903.

1911. *Lutreola vison antiquus* Loomis, Amer. Journ. Sci., vol. 31, p. 228, March 1911. (Flagg Island, Casco Bay, Maine.)

1912. *Mustela macrodon* Miller, U. S. Nat. Mus. Bull. 79, p. 101, Dec. 31, 1912.

Type Locality.—Shell heaps at Brooklin, Hancock County, Maine. *Range.*—At present known from skeletal remains only; according to Hardy (Forest and Stream, vol. 61, p. 125, Aug. 15, 1903) the animal became extinct about 1860.

Subgenus PUTORIUS[94] G. Cuvier

1817. *Putorius* G. Cuvier, Le règne animal . . . , vol. 1, p. 147. (Type, *Mustela putorius* Linnaeus.)

Mustela nigripes (Audubon and Bachman) * (black-footed ferret)

1851. *Putorius nigripes* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, p. 297.

1884. *Putorius nigripes* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

1912. *Mustela nigripes* Miller, U. S. Nat. Mus. Bull. 79, p. 102, Dec. 31, 1912.

Type Locality.—Fort Laramie, Goshen County, Wyo. (See Hayden, Trans. Amer. Philos. Soc., new ser., vol. 12, p. 138, 1862.) *Range.*—Great Plains, from western North Dakota and northern Montana, north to southeastern Alberta and southwestern Saskatchewan, south to Texas, and thence westward through New Mexico to country north of Williams, Ariz., to southern rim of Grand Canyon, which to date appears to be its most westerly known habitat. Vertical range in Rocky Mountains up to 10,500 feet (Young, Amer. Forests, vol. 46, No. 1, p. 18, January 1940). Recorded also eastward to Norman, Cleveland County, Okla. (Arvey and Glass, Journ. Mamm., vol. 31, No. 4, p. 460, Nov. 21, 1950).

Subfamily TAYRINAE

Genus TAYRA[95] Oken

1816. *Tayra* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sect. 2, p. 1001. (Type, *Mustela barbara* Linnaeus.)

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[94] Revised by Merriam, North Amer. Fauna No. 11, pp. 7–9, June 30, 1896.

[95] Names published by Oken in 1816 regarded by Hershkovitz, Journ. Mamm., vol. 30, No. 3, p. 295, Aug. 17, 1949, as non-Linnaean and not available.

1842. *Eira* Hamilton-Smith, *in* The naturalist's library (Edit. Jardine), vol. 35 (Mammalia, vol. 13, Introduction), p. 201, December 1842. (Type, *Eira barbara*=*Mustela barbara* Linnaeus.)

1843. *Galera* Gray, List of . . . Mammalia in the . . . British Museum, pp. xx, 67. (Type, *Mustela barbara* Linnaeus. Not *Galera* Browne, The civil and natural history of Jamaica, ed. 2, p. 485, 1789. See J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 377, Oct. 11, 1902, and vol. 24, pp. 586–589, Sept. 11, 1908; and Hershkovitz, Journ. Mamm., vol. 30, No. 3, p. 295, Aug. 17, 1949.)

Tayra barbara biologiae (Thomas)*

1900. *Galictis barbara biologiae* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 146, January 1900.

1908. *T[ayra] barbara biologiae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 662, Oct. 13, 1908.

Type Locality.—Calovévora [=Calovébora], Veraguas, Panamá. *Range.*—Panamá and Costa Rica.

Tayra barbara inserta J. A. Allen*

1908. *Tayra barbara inserta* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 662, Oct. 13, 1908.

Type Locality.—Uluse, Matagalpa, Nicaragua. *Range.*—Most of Nicaragua, south-central Honduras, and possibly north Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 434, Dec. 31, 1946).

Tayra barbara senex (Thomas)*

1884. *Galictis barbara* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884. (Part.)

1900. *Galictis barbara senex* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 5, p. 146, January 1900.

1912. *Tayra barbara senex* Miller, U. S. Nat. Mus. Bull. 79, p. 103, Dec. 31, 1912.

Type Locality.—Hacienda Tortugas, Jalapa, Veracruz, México. Altitude, about 600 feet. *Range.*—Recorded also from Uaxactún, Petén, Guatemala (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 21, July 15, 1935), and Silkgrass, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 562, July 10, 1951).

Subfamily GRISONINAE

Genus GRISON[96] Oken

1816. *Grison* Oken, Okens Lehrbuch der Naturgeschichte, pt. 3 (Zoologie), sect. 2, p. 1000. (Type, *Viverra vittata* Schreber.)

1826. *Galictis* Bell, Zool. Journ., vol. 2, p. 552, April 1826. (Type, *Viverra vittata* Schreber.)

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[96] For use of *Grison* in place of *Galictis* Bell, see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 377, Oct. 11, 1902. Names published by Oken in 1816 regarded by Hershkovitz, Journ. Mamm., vol. 30, No. 3, p. 293, Aug. 17, 1949, as non-Linnaean and not available.

Grison canaster (Nelson) †*

1901. *Galictis canaster* Nelson, Proc. Biol. Soc. Washington, vol. 14, p. 129, Aug. 9, 1901. (Regarded by Nehring, Sitzb. Ges. naturf. Freunde, Berlin, 1901, pp. 209–216, as probably identical with the Brazilian *G. crassidens* Nehring, 1885.)

1903. *Grison canaster* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 31, p. 114, Aug. 24, 1903.

Type Locality.—Near Tunkás, Yucatán, México. *Range.*—From Xilitla, eastern San Luis Potosí, and Orizaba, central Veracruz (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 13, July 10, 1950, south to Panamá (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 435, Dec. 31, 1946).

Subfamily GULONINAE (wolverines)

Genus GULO Pallas

1780. *Gulo* Pallas, . . . Spicilegia zoologica, . . . , fasc. 14, p. 25. (Type, *Gulo sibiricus* Pallas=*Ursus gulo* Linnaeus.)

Gulo luscus luscus (Linnaeus) *

1758. [*Ursus*] *luscus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 57.

1823. *Gulo luscus* Sabine, *in* Franklin, Narrative of a journey to the shores of the Polar Sea in . . . 1819–22, p. 650. (Regarded as a subspecies of *Gulo gulo* by Degerbøl *in* Degerbøl and Freuchen, Mammals, *in* Rep. Fifth Thule Exped. 1921–24, Danish Exped. to Arctic North America, vol. 2, Nos. 4–5, pt. 1, pp. 35–43, 1935.)

1884. *Gulo luscus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

1918. *Gulo auduboni* Matschie, Sitzb. Ges. naturf. Freunde, Berlin, p. 153, July 30, 1918. (Newfoundland and New York.)

1918. *Gulo bairdi* Matschie, Sitzb. Ges. naturf. Freunde, Berlin, p. 153, July 30, 1918. (Northwest of Fort Union, situated near the present town of Buford, Williams County, N. Dak.)

1918. *Gulo niediecki* Matschie, Sitzb. Ges. naturf. Freunde, Berlin, p. 148, July 30, 1918. (Dease Lake, British Columbia, Canada.)

1947. *Gulo luscus luscus* Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 68, Jan. 24, 1947.

Type Locality.—Hudson Bay. *Range.*—From shores of Arctic Ocean, straggling north to northern Baffin Island, Ellesmere Island, and Melville Island, east to Labrador coast, and west to Alaska; south formerly to extreme northeastern United States, Michigan, Wisconsin, Minnesota, and North Dakota, and southward in the Rocky Mountains into Colorado.

Gulo luscus luteus Elliot*

1904. *Gulo luteus* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 260, Jan. 7, 1904.

1913. *Gulo luscus luteus* Grinnell, Proc. California Acad. Sci., ser. 4, vol. 3, p. 291, Aug. 28, 1913.

Type Locality.—Crater Meadows [= Groundhog Meadows], Whitney Creek [= Golden Trout Creek], 27 miles south of Mount Whitney, Tulare County, Calif. Altitude, 8,700 feet. *Range.*—From southern (Piute Mountains, Kern

County) and central (vicinity Lake Tahoe) Sierra Nevada in California northward through Oregon and Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 202, Apr. 9, 1948) probably to western British Columbia (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 69, footnote, Jan. 24, 1947).

Gulo luscus vancouverensis Goldman†*

1935. *Gulo luscus vancouverensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 177, Nov. 15, 1935. (See also Cowan, Canadian Field-Nat., vol. 50, pp. 145–146, Dec. 3, 1936.)

Type Locality.—Great Central Lake, Vancouver Island, British Columbia, Canada. *Range.*—Restricted to Vancouver Island.

Gulo hylaeus Elliot*

1905. *Gulo hylaeus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 81, Feb. 21, 1905.

Type Locality.—Susitna River, region of Mount McKinley, Alaska.

Gulo katschemakensis Matschie*

1918. *Gulo katschemakensis* Matschie, Sitzb. Ges. naturf. Freunde, Berlin, p. 151, July 30, 1918. (Regarded by Anthony, Field book of North American mammals, p. 113, 1928, as indistinguishable from *Gulo luscus luscus.*)

Type Locality.—Katschemak Bay, Kenai Peninsula, Alaska.

Subfamily TAXIDIINAE (American badgers)

Genus TAXIDEA[97] Waterhouse

1839. *Taxidea* Waterhouse, Proc. Zool. Soc. London, 1838, pt. 6, p. 153, May 1839. (Type *Meles labradorius* Gmelin = *Ursus taxus* Schreber.)

Taxidea taxus taxus (Schreber)*

1778. *Ursus taxus* Schreber, Die Säugthiere . . . , vol. 3, p. 520.

1884. *Taxidea americana americana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

1894. *Taxidea taxus* Rhoads, Amer. Nat., vol. 28, p. 524, June 1894.

Type Locality.—Labrador and Hudson Bay (probably southwest of Hudson Bay). *Range.*—Southwestern Ontario (Rainey River District) and Great Plains region of Manitoba, Saskatchewan, and Alberta, to foothills of Rocky mountains; south to northern Indiana, northern Illinois, Michigan, Wisconsin, and Minnesota; and into southern British Columbia.

Taxidea taxus jacksoni Schantz†*

1946. *Taxiden taxus jacksoni* Schantz, Journ. Mamm., vol. 26, No. 4 (November 1945), p. 431, Feb. 12, 1946.

Type Locality.—Four miles east of Milton, Rock County, Wis. *Range.*—Southern Wisconsin and southern Minnesota; limits of range undetermined.

Taxidea taxus iowae Schantz†*

1947. *Taxidea taxus iowae* Schantz, Journ. Mamm., vol. 28, No. 3 (August 1947), p. 287, Sept. 3, 1947.

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[97] **Revised by Hall, Carnegie Inst. Washington Publ. 473, pp. 77–83, Nov. 20, 1936.**

Type Locality.—Near Clarion, Wright County, Iowa. *Range.*—Known from Iowa only.

Taxidea taxus dacotensis Schantz†*

1946. *Taxidea taxus dacotensis* Schantz, Proc. Biol. Soc. Washington, vol. 59, p. 81, June 19, 1946.

Type Locality.—Folsom, Custer County, S. Dak. *Range.*—Badlands region of western South Dakota.

Taxidea taxus montana Schantz†*

1950. *Taxidea taxus montana* Schantz, Journ. Mamm., vol. 31, No. 1, p. 90, Feb. 21, 1950.

Type Locality.—Thirty five miles south of Dillon, Beaverhead County, Mont. *Range.*—Montana, excepting an extreme western portion; Wyoming, excepting an extreme western portion; Colorado, excepting a southwestern portion; eastern Utah, west to approximately long. 100°25′ W.

Taxidea taxus merriami Schantz†*

1950. *Taxidea taxus merriami* Schantz, Journ. Washington Acad. Sci., vol. 40, No. 3, p. 92, Mar. 21, 1950.

Type Locality.—Banner, Trego County, Kan. *Range.*—Kansas, approximately between long. 97° and 101° W., except for a dip south to Hill City (22 miles east), Graham County.

Taxidea taxus kansensis Schantz*

1950. *Taxidea taxus kansensis* Schantz, Journ. Mamm., vol. 31, No. 3, p. 346, Aug. 21, 1950.

Type Locality.—Four miles southeast of McLouth, Leavenworth County, Kan. *Range.*—Eastern Kansas, east of long. 97° W.

Taxidea taxus berlandieri Baird†*

1858. *Taxidea berlandieri* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 205, July 14, 1858.

1884. *Taxidea americana berlandieri* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

1895. *Taxidea taxus berlandieri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 256, June 29, 1895.

1918. *Taxidea taxus phippsi* Figgins, Proc. Colorado Mus. Nat. Hist., [vol. 2, No. 2, p. 1], April 1918. (Northeast of Chromo, Archuleta County, Colo.)

Type Locality.—Llano Estacado, Tex., near border of New Mexico. *Range.*—Texas, New Mexico, southwestern Colorado, southern and southeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 428, Aug. 10, 1952), eastern and southern Arizona, northern Baja California; north to Mohave and Colorado Deserts of California; southern limit undetermined.

Taxidea taxus littoralis Schantz†*

1949. *Taxidea taxus littoralis* Schantz, Journ. Mamm., vol. 30, No. 3, p. 301, Aug. 17, 1949.

Type Locality.—Corpus Christi, Nueces County, Tex. *Range.*—Coastal area of Texas from Corpus Christi southward along Gulf coast and inland to Coahuila, México.

Taxidea taxus apache Schantz†*

1948. *Taxidea taxus apache* Schantz, Proc. Biol. Soc. Washington, vol. 61, p. 175, Nov. 12, 1948.

Type Locality.—San Pedro River, Arizona and Sonora, Mexico–United States boundary. *Range.*—Grassy plains region of southeastern Arizona and northeastern Sonora, near Mexican boundary, 25 miles south into Sonora and 65 miles north to Willcox, Ariz.

Taxidea taxus sonoriensis Goldman†*

1939. *Taxidea taxus sonoriensis* Goldman, Journ. Washington Acad. Sci., vol. 29, No. 7, p. 300, July 15, 1939.

Type Locality.—Camoa, Río Mayo, about 15 miles above Navojoa, Sonora, México. *Range.*—Lowland plains region of southern Sonora; limits of range undetermined. Recorded also at Santa Rosa, Xamoa, near Navojoa, southern Sonora, México (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 562, July 10, 1951).

Taxidea taxus hallorani Schantz†*

1949. *Taxidea taxus hallorani* Schantz, Journ. Mamm., vol. 30, No. 3, p. 302, Aug. 17, 1949.

Type Locality.—Castle Dome Mountains, Kofa Game Range, Yuma County, Ariz. *Range.*—Southern gray desert soils from southeastern Nevada, lat. 36°30′ N.; southward into southeastern California, long. 114°45′ to 115°30′ W., and lat. 34°50′ to 35°20′ N.; in Arizona west of long. 111° W., excepting Beaver Creek and Santa Catalina Mountains, and south of lat. 35°40′ N.; extreme northeastern Baja California and northwestern Sonora.

Taxidea taxus halli Schantz†*

1949. *Taxidea taxus nevadensis* Schantz, Journ. Mamm., vol. 30, No. 3, p. 304, Aug. 17, 1949. (Not *Taxidea nevadensis* Butterworth, Univ. California Publ., Bull. Dept. Geol., vol. 10, p. 21, Oct. 3, 1916.)

1951. *Taxidea taxus halli* Schantz, Journ. Mamm., vol. 32, No. 1, p. 127, Feb. 15, 1951.

Type Locality.—White Sage Flat, between Desert Range and Sheep Range, Desert Game Range, Clark County, Nev. *Range.*—The Desert Game Range, an area covering 2,022,000 acres in southern Nevada, and that part of southern Nevada and southeastern California north of range of *hallorani,* at lat. 36°45′ N., and west to Death Valley and Panamint Mountains, Calif.

Taxidea taxus neglecta Mearns†*

1891. *Taxidea americana neglecta* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 250, June 5, 1891.

1901. *Taxidea taxus neglecta* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 218, Dec. 27, 1901.

Type Locality.—Fort Crook, Shasta County, Calif. *Range.*—From Baja California, and California west and north of Mohave and Colorado Deserts north to eastern Oregon.

Taxidea taxus infusca Thomas*

1898. *Taxidea taxus infusca* Thomas, Proc. Zool. Soc. London, 1897, pt. 4, p. 899, Apr. 1, 1898.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Peninsula of Baja California. Northward extent of range on Peninsula not determined.

Subfamily MEPHITINAE (skunks)

Genus SPILOGALE[93] Gray

1865. *Spilogale* Gray, Proc. Zool. Soc. London, pt. 1, p. 150, June 1865. (Type *Mephitis interrupta* Rafinesque.)

Spilogale ambarvalis Bangs*

1884. *Mephitis putorius* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884. (Part.)

1898. *Spilogale ambarvalis* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 222, March 1898.

Type Locality.—Oak Lodge, East Peninsula, opposite Micco, Brevard County, Fla. *Range.*—Eastern portion of Florida Peninsula, from New Smyrna south into Dade County.

Spilogale putorius (Linnaeus) *

1758. *Viverra putorius* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 44, 1758.

1875. *Spilogale putorius* Coues, Bull. U. S. Geol. Geogr. Surv. Terr., ser. 2, No. 1, p. 12. (Part.)

1890. *Spilogale ringens* Merriam†, North Amer. Fauna No. 4, p. 9, Oct. 8, 1890. (Greensboro, Hale County, Ala.)

Type Locality.—South Carolina. *Range.*—Mississippi, Alabama, western Georgia, western South Carolina, and northward along Alleghenies to northern Virginia; western limits of range unknown.

Spilogale interrupta (Rafinesque) *

1820. *Mephitis interrupta* Rafinesque, Annals of Nature . . ., vol. 1, p. 3.

1890. *Spilogale interrupta* Merriam, North Amer. Fauna No. 4, p. 8, Oct. 8, 1890.

Type Locality.—Upper Missouri. (See Lichtenstein, Abhandl. Preuss. Akad. Wiss. Berlin, 1836, p. 281, 1838.) *Range.*—Iowa, southern Minnesota, eastern South Dakota, Nebraska, Kansas, Missouri, and Oklahoma; south in eastern Texas to about middle of State. Recorded also from St. Croix County, Wis. (Barger, Wisconsin Conserv. Bull., vol. 16, No. 5, p. 28, May 1951).

Spilogale indianola Merriam†*

1890. *Spilogale indianola* Merriam, North Amer. Fauna No. 4, p. 10, Oct. 8, 1890.

Type Locality.—Indianola, Matagorda Bay, Matagorda County, Tex. *Range.*—Coast region of Texas and Louisiana; south to Victoria, Tamaulipas.

Spilogale gracilis gracilis Merriam†*

1890. *Spilogale gracilis* Merriam, North Amer. Fauna No. 3, p. 83, Sept. 11, 1890.

1890. *Spilogale leucoparia* Merriam†, North Amer. Fauna No. 4, p. 11, Oct. 8, 1890. (Mason, Mason County, Tex. Regarded as identical with *gracilis* by Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist.. vol. 5, No. 25, p. 332, Dec. 5, 1952.)

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[93] Revised by A. H. Howell, North Amer. Fauna No. 26, Nov. 24, 1906.

1891. *Spilogale phenax arizonae* Mearns, Bull. Amer. Mus. Nat. Hist., vol. 3, p. 256, June 5, 1891. Fort Verde, Yavapai County, Ariz. (Regarded as identical with *gracilis* by Hall and Kelson, loc. cit.)

1897. *Spilogale ambigua* Mearns†, Preliminary diagnoses of new mammals of the genera *Lynx, Urocyon, Spilogale,* and *Mephitis,* from the Mexican boundary line, p. 3, Jan. 12, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 460, Dec. 24, 1897. Eagle Mountain, Chihuahua, México, about 4 miles south of border of Dona Ana County, N. Mex. Regarded as identical with *gracilis* by Hall and Kelson, loc. cit.)

Type Locality.—Grand Canyon of the Colorado River, north of San Francisco Mountain, Coconino County, Ariz. Altitude, 3,500 feet. *Range.*—Extreme southeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 434, Aug. 10, 1952), extreme southeastern Nevada (Clark County; Hall, Mammals of Nevada, p. 204, July 1, 1946), Inyo and Panamint Mountains, and Owens Valley in Inyo County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 106, Sept. 26, 1933), south through Arizona to Sierra de San José, Sonora (A. H. Howell, North Amer. Fauna No. 26, p. 29, Nov. 24, 1906); north at least to Glenwood, Catron County, and Tularosa, Otero County, N. Mex. (V. Bailey, North Amer. Fauna No. 53 (December 1931), pp. 339, 341, Mar. 1, 1952); and south to northern Chihuahua (Colonia García), southern Coahuila (Sierra Encarnación), and Monterrey in central Nuevo León (A. H. Howell, loc. cit., pp. 21, 23); east at least to Mason, Mason County, Waring, Kendall County, D'Hanis, Medina County, and Laredo, Webb County, all in Texas (A. H. Howell, loc. cit., p. 21).

Spilogale gracilis saxatilis Merriam†*

1890. *Spilogale saxatilis* Merriam, North Amer. Fauna No. 4, p. 13, Oct. 8, 1890.

1906. *Spilogale gracilis saxatilis* A. H. Howell, North Amer. Fauna No. 26, p. 23, Nov. 24, 1906.

Type Locality.—Provo, Utah County, Utah. *Range.*—Utah, western Colorado, northern Nevada, southern Idaho, southwestern Montana (Jellison, Journ. Mamm., vol. 12, No. 3, p. 314, Aug. 12, 1931), southeastern Washington north to Kamiak Butte (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 215, Apr. 9, 1948), eastern Oregon, and northeastern California.

Spilogale gracilis tenuis A. H. Howell†*

1902. *Spilogale tenuis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 15, p. 241, Dec. 16, 1902. (Cranial differences not apparent between *tenuis* and *saxatilis* according to Hall, Mammals of Nevada, p. 203, July 1, 1946.)

1952. *Spilogale gracilis tenuis* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 333, Dec. 5, 1952.

Type Locality.—Arkins, Larimer County, Colo. *Range.*—Eastern slopes of Rocky Mountains in Colorado and northern New Mexico; limits of range unknown.

Spilogale gracilis latifrons Merriam†*

1890. *Spilogale phenax latifrons* Merriam, North Amer. Fauna No. 4, p. 15, Oct. 8, 1890.

1899. *Spilogale olympica* Elliot, Field Columb. Mus. Publ. 32, Zool. Ser., vol. 1, No. 13 (March), p. 270, May 17, 1899. (Lake Sutherland, Olympic Mountains, Clallam County, Wash. Regarded as identical with *latifrons* by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 215, Apr. 9, 1948.)

1933. *Spilogale gracilis latifrons* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 106, Sept. 26, 1933.—Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, p. 301, Aug. 10, 1937.

Type Locality.—Roseburg, Douglas County, Oreg. *Range.*—Extreme northwestern corner of California, including Humboldt County (at least from Van Duzen River Valley northward), Del Norte County, and western Siskiyou County; coast region of Oregon; western Washington from western edge of Cascades westward (Dalquest, loc. cit.); and north in southwestern British Columbia to Howe Sound and near summit of Coast Mountains at Alta Lake, 70 miles north of Vancouver (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 72, Jan. 24, 1947).

Spilogale gracilis phenax Merriam†*

1890. *Spilogale phenax* Merriam, North Amer. Fauna No. 4, p. 13, Oct. 8, 1890.

1933. *Spilogale gracilis phenax* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 105, Sept. 26, 1933.—Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, p. 293, Aug. 10, 1937.

Type Locality.—Nicasio, Marin County, Calif. *Range.*—Most of California west of Sierran divide, north from Santa Barbara and Kern Counties to southern Humboldt, Trinity, and Siskiyou Counties.

Spilogale gracilis microrhina Hall

1926. *Spilogale phenax microrhina* Hall, Journ. Mamm., vol. 7, No. 1, p. 53, Feb. 12, 1926.

1933. *Spilogale gracilis microrhina* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 105, Sept. 26, 1933.—Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, p. 298. Aug. 10, 1937.

Type Locality.—Julian, San Diego County, Calif. *Range.*—Extreme southwestern California; west from edges of Mohave and Colorado Deserts to seacoast and northwest as far as Ventura County; intergradation from *microrhina* to *phenax* takes place up coastal region from Los Angeles County to San Luis Obispo County; vertical range from near sea level up at least to 4,500 feet (Grinnell, loc. cit.). Recorded also from San Bernardino Peak, La Puerta, and Dulzura in southern California (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 335, Dec. 5, 1952).

Spilogale gracilis amphialus Dickey*

1929. *Spilogale phenax amphialus* Dickey, Proc. Biol. Soc. Washington, vol. 42, p. 158, Apr. 4, 1929.

1933. *Spilogale gracilis amphialus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 105, Sept. 26, 1933.—Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, p. 299, Aug. 10, 1937.

Type Locality.—Santa Rosa Island, Santa Barbara Islands, Calif. *Range.*—Santa Rosa and Santa Cruz Islands, Santa Barbara County.

Spilogale gracilis martirensis Elliot*

1903. *Spilogale arizonae martirensis* Elliot, Field Columb. Mus. Publ. 74, Zool. Ser., vol. 3, No. 10 (April), p. 170, May 7, 1903.

Type Locality.—Vallecitos, Sierra San Pedro Mártir, Baja California, México. *Range.*—Baja California, from Sierra San Pedro Mártir, south to Mulejé (Mulege; A. H. Howell, North Amer. Fauna No. 26, p. 31, Nov. 24, 1906).

Spilogale gracilis microdon A. H. Howell†*

1906. *Spilogale microdon* A. H. Howell, North Amer. Fauna No. 26, p. 34, Nov. 24, 1906.

1952. *Spilogale gracilis microdon* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 334, Dec. 5, 1952.

Type Locality.—Comondú, Baja California, México. *Range.*—Known from type locality only.

Spilogale gracilis lucasana Merriam†*

1890. *Spilogale lucasana* Merriam, North Amer. Fauna No. 4, p. 11, Oct. 8, 1890.

1952. *Spilogale gracilis lucasana* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 335, Dec. 5, 1952.

Type Locality.—Cape San Lucas, Baja California, México. *Range.*—Cape region of Baja California.

Spilogale angustifrons angustifrons A. H. Howell†*

1902. *Spilogale angustifrons* A. H. Howell, Proc. Biol. Soc. Washington, vol. 15, p. 242, Dec. 16, 1902.

Type Locality.—Tlalpan, Distrito Federal, México. *Range.*—Southern portion to Mexican tableland from Guanajuato to Isthmus of Tehuantepec. Recorded also from Tulancingo, Hidalgo; Barranca Ibarra, Lagos, Ocotlán, and San Sebastián, Jalisco; and Pátzcuaro, Michoacán, México (Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 329, Dec. 5, 1952).

Spilogale angustifrons tropicalis A. H. Howell†*

1902. *Spilogale angustifrons tropicalis* A. H. Howell, Proc. Biol. Soc. Washington, vol. 15, p. 242, Dec. 16, 1902.

Type Locality.—San Mateo del Mar, Oaxaca, México. *Range.*—Coast region of southern Oaxaca.

Spilogale angustifrons elata A. H. Howell†*

1906. *Spilogale angustifrons elata* A. H. Howell, North Amer. Fauna No. 26, p. 27, Nov. 24, 1906.

Type Locality.—San Bartolomé, Chiapas, México. *Range.*—Highlands of Chiapas, México; Guatemala (recorded from Duenas by Hall, Ann. Mag. Nat. Hist., ser. 11, vol. 1, No. 5, p. 513, May 1938); Honduras, Nicaragua, and northern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 435, Dec. 31, 1946).

Spilogale angustifrons yucatanensis Burt

1938. *Spilogale angustifrons yucatanensis* Burt, Occ. Pap., Mus. Zool. Univ. Michigan No. 384, p. 2, Aug. 27, 1938.

Type Locality.—Chichén-Itzá, Yucatán, México. *Range.*—Yucatán Peninsula, México.

Spilogale angustifrons celeris Hall

1938. *Spilogale angustifrons celeris* Hall, Ann. Mag. Nat. Hist., ser. 11, vol. 1, No. 5, p. 511, May 1938.

Type Locality.—San Isidro, Alajuela, Costa Rica.

Spilogale pygmaea pygmaea Thomas*

1898. *Spilogale pygmaea* Thomas, Proc. Zool. Soc. London, 1897, pt. 4, p. 898, Apr. 1, 1898.

1938. *S[pilogale] p[ygmaea] pygmaea* Hall, Ann. Mag. Nat. Hist., ser. 11, vol. 1, No. 5, p. 514, May 1938.

Type Locality.—Rosario, Sinaloa, México. *Range.*—Known only from type locality.

Spilogale pygmaea australis Hall†*

1938. *Spilogale pygmaea australis* Hall, Ann. Mag. Nat. Hist., ser. 11, vol. 1, No. 5, p. 514, May 1938.

Type Locality.—Acapulco, Guerrero, México. *Range.*—Known from type locality only.

Genus MEPHITIS[99] **É. Geoffroy-Saint-Hilaire and G. Cuvier**

1795. *Mephitis* É. Geoffroy-Saint-Hilaire and G. Cuvier, Mag. Encyclopédique, new ser., vol. 2, p. 187. (Type, *Viverra mephitis* Schreber.)

Subgenus MEPHITIS É. Geoffroy-Saint-Hilaire and G. Cuvier

Mephitis mephitis mephitis (Schreber) *

1776. *Viverra mephitis* Schreber, Die Säugthiere . . . , Theil 3, Heft. 17, pl. 121.

1902. *Mephitis mephitis* J. A. Allen and others, Science, new ser., vol. 16, p. 115, July 18, 1902.

Type Locality.—Eastern Canada (= Province of Quebec). *Range.*—Eastern Canada—Nova Scotia, New Brunswick, Quebec, and northern Ontario; ranging north to James Bay and found occasionally on north shore of Gulf of St. Lawrence, west at least to Oxford House in central Manitoba (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 72, Jan. 24, 1947).

Mephitis mephitis hudsonica Richardson*

1829. *Mephitis americana* var. *hudsonica* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 55.

1911. *Mephitis minnesotae* Brass, Aus dem Reiche der Pelze, p. 532, April 1911. (Forested region of Minnesota.)

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[99] Revised by Hall, Carnegie Inst. Washington Publ. 473, pp. 64–68, Nov. 20, 1936.

1934. *Mephitis mephitis hudsonica* Hall, Univ. California Publ. Zool., vol. 40, No. 2, p. 368, Nov. 5, 1934.—Hall, Carnegie Inst. Washington Publ. 473, p. 65, Nov. 20, 1936.

Type Locality.—Plains of the Saskatchewan, Canada. *Range.*—Western Canada from Central Manitoba to British Columbia, through Cascades where it intergrades with *spissigrada*; north in British Columbia to vicinity of Tuchodi Lake and junction of Liard and Nelson Rivers; north in Mackenzie District as far as Simpson (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 73, Jan. 24, 1947); south in United States to Upper Peninsula of Michigan (Burt, Mammals of Michigan, p. 151, 1946), Wisconsin (Schmidt, Journ. Mamm., vol. 12, No. 2, p. 117, May 14, 1931), Minnesota (Swanson, Minnesota Dept. Conserv. Techn. Bull. 2, p. 69, 1945), Nebraska and northern New Mexico, as well as northeastern Washington and eastern edge of northern Cascades (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 218, Apr. 9, 1948).

Mephitis mephitis nigra (Peale and Palisot de Beauvois) *

1796. *Viverra nigra* Peale and Palisot de Beauvois, A scientific and descriptive catalogue of Peale's museum, Philadelphia, p. 37.

1884. *Mephitis mephitica* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884. (Part).

1901. *Chincha putida* A. H. Howell, North Amer. Fauna No. 20, p. 25, Aug. 31, 1901.

1911. *Mephitis dentata* Brass, Aus dem Reiche der Pelze, p. 533, April 1911. (From the Alleghenies to Connecticut.)

1921. *Mephitis mephitis nigra* A. H. Howell, North Amer. Fauna No. 45, p. 39, Oct. 28, 1921.

Type Locality.—Maryland. *Range.*—New England, and Middle Atlantic States; north to southern Ontario at least as far as Toronto region; southern Quebec along northern boundaries of New York, Vermont, New Hampshire, and Maine; probably also western New Brunswick; south to northern Virginia, and west of Allegheny Mountains from Lower Peninsula of Michigan and southern Illinois to central Alabama and Mississippi (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 73, Jan. 24, 1947).

Mephitis mephitis elongata Bangs*

1895. *Mephitis mephitica elongata* Bangs, Proc. Boston Soc. Nat. Hist., vol. 26, p. 531, July 31, 1895.

1921. *Mephitis mephitis elongata* A. H. Howell, North Amer. Fauna No. 45, p. 39, Oct. 28, 1921.

Type Locality.—Micco, Brevard County, Fla. *Range.*—Florida (from vicinity of Lake Worth) to North Carolina; westward through Georgia, southern half of Alabama to Mississippi River on coast.

Mephitis mephitis avia Bangs*

1898. *Mephitis avia* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 32, Mar. 24, 1898.

1936. *Mephitis mephitis avia* Hall, Carnegie Inst. Washington Publ. 473, p. 65, Nov. 20, 1936.

Type Locality.—San Jose, Mason County, Ill. *Range.*—Prairie region of Illinois, western Indiana, eastern Iowa, northern Missouri, northeastern Kansas; boundaries of range imperfectly known.

Mephitis mephitis mesomelas Lichtenstein*

1832. *Mephitis mesomelas* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere, . . . , pl. 45, fig. 2.

1896. *Mephitis mephitica scrutator* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 141, Dec. 28, 1896. (Cartville, Acadia Parish, La.)

1901. *Chincha mesomelas* A. H. Howell, North Amer. Fauna No. 20, p. 29, Aug. 31, 1901.

1936. *Mephitis mephitis mesomelas* Hall, Carnegie Inst. Washington Publ. 473, p. 66, Nov. 20, 1936.

Type Locality.—Louisiana. *Range.*—West side of Mississippi Valley from southern Louisiana to Missouri and extreme southeastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 69, September 1944); westward along coast of Texas to Matagorda Island; and up Red River Valley as far at least as Wichita Falls.

Mephitis mephitis varians Gray*

1837. *Mephitis varians* Gray, Mag. Nat. Hist., new ser., vol. 1, p. 581.

1901. *Chincha mesomelas varians* A. H. Howell, North Amer. Fauna No. 20, p. 31, Aug. 31, 1901.

1901. *Mephitis mesomelas varians* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 334, Nov. 12, 1901.

1936. *Mephitis mephitis varians* Hall, Carnegie Inst. Washington Publ. 473, p. 66, Nov. 20, 1936.

Type Locality.—Texas. *Range.*—Southern and western Texas, eastern two-thirds of New Mexico, and adjacent parts of Mexico north into Oklahoma, Colorado, Kansas, and Nebraska.

Mephitis mephitis estor Merriam†*

1890. *Mephitis estor* Merriam, North Amer. Fauna No. 3, p. 81, Sept. 11, 1890.

1933. *Mephitis mephitis estor* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 108, Sept. 26, 1933.—Hall, Carnegie Inst. Washington Publ. 473, p. 66, Nov. 20, 1936.

Type Locality.—San Francisco Mountain [Little Spring at north base], Coconino County, Ariz. Altitude, 8,200 feet. *Range.*— Western third of New Mexico across Arizona to northeastern Baja California and southeastern California (Colorado River Valley); northward to southeastern Nevada (Hall, Mammals of Nevada, p. 213, July 1, 1946); southern and eastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 431, Aug. 10, 1952); and southward in Sonora, and in Sierra Madre to southern Chihuahua; limits of range unknown.

Mephitis mephitis major (A. H. Howell)†*

1901. *Chincha occidentalis major* A. H. Howell, North Amer. Fauna No. 20, p. 37, Aug. 31, 1901.

1931. *Mephitis mephitis major* Hall, Univ. California Publ. Zool., vol. 37, No. 1, p. 1, Apr. 10, 1931.

Type Locality.—Fort Klamath, Klamath County, Oreg. *Range.*—Southeastern Washington, south of Snake River and east of Columbia River (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 218, Apr. 9, 1948), eastern Oregon and northeastern California (east of Sierran Divide, Modoc County to Lake Tahoe and Owens Valley), eastward to southeastern Idaho and Wasatch Mountains in Utah; and southward to Colorado River.

Mephitis mephitis holzneri Mearns*

1897. *Mephitis occidentalis holzneri* Mearns, Preliminary diagnoses of new mammals of the genera *Lynx*, *Urocyon*, *Spilogale*, and *Mephitis*, from the Mexican boundary line, p. 4, Jan. 12, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 461, Dec. 24, 1897.)

1933. *Mephitis mephitis holzneri* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 107, Sept. 26, 1933.—Hall, Carnegie Inst. Washington Publ. 473, p. 66, Nov. 20, 1936.

Type Locality.—San Isidro Ranch, within 2 miles of United States boundary and 19 miles east from Pacific seacoast, Baja California, México. *Range.*—Southern California, chiefly west of deserts, from about latitude of Monterey, east to southern Sierra Nevada in Kern River Basin, and western edges of Mohave and Colorado Deserts, south in Coast Range and along coast to mouth of Santo Domingo River, Baja California.

Mephitis mephitis occidentalis Baird†*

1858. *Mephitis occidentalis* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 194, July 14, 1858.

1901. *Chincha platyrhina* A. H. Howell,† North Amer. Fauna No. 20, p. 39, Aug. 31, 1901. (South fork of Kern River, 3 miles above Onyx, Kern County, Calif.)

1933. *Mephitis mephitis occidentalis* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 106, Sept. 26, 1933.—Hall, Carnegie Inst. Washington Publ. 473, p. 67, Nov. 20, 1936.

Type Locality.—Petaluma, Sonoma County, Calif. *Range.*—From Willamette Valley, Oreg., south through northwestern and western California to about latitude of Monterey Bay and east to Sierran divide.

Mephitis mephitis notata (A. H. Howell)†*

1901. *Chincha occidentalis notata* A. H. Howell, North Amer. Fauna No. 20, p. 36, Aug. 31, 1901.

1936. *Mephitis mephitis notata* Hall, Carnegie Inst. Washington Publ. 473, p. 67, Nov. 20, 1936.

Type Locality.—Trout Lake, Skamania County, Wash. *Range.*—Columbia River Valley of southern Cascades from Wind River east to Snake River, and Yakima Valley area (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 219, Apr. 9, 1948) in southern Washington; and northern Oregon, east of Cascades.

Mephitis mephitis spissigrada Bangs*

1898. *Mephitis spissigrada* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 31, Mar. 24, 1898.

1899. *Mephitis foetulenta* Elliot, Field Columb. Mus. Publ. 32, Zool. Ser., vol. 1, No. 13 (March), p. 269, May 17, 1899. (Lagune, near Port Angeles, Clallam County, Wash.)

1936. *Mephitis mephitis spissigrada* Hall, Carnegie Inst. Washington Publ. 473, p. 67, Nov. 20, 1936.

Type Locality.—Sumas, British Columbia, Canada. *Range.*—Pacific coast region from northwestern Oregon, and Washington, to southwestern British Columbia south of Fraser River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 73, Jan. 24, 1947).

Subgenus LEUCOMITRA[1] A. H. Howell

1901. *Leucomitra* A. H. Howell, North Amer. Fauna No. 20, p. 39, Aug. 31, 1901. (Type, *Mephitis macroura* Lichtenstein.)

Mephitis macroura macroura Lichtenstein*

1832. *Mephitis macroura* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere, . . . , pl. 46.

1884. *Mephitis macrurus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

Type *Locality.*—Mountains northwest of city of México. *Range.*—Highlands of central and southern México; south to Honduras (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 180, May 29, 1942).

Mephitis macroura eximius Hall and Dalquest

1950. *Mephitis macroura eximius* Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 24, p. 579, Jan. 20, 1950.

Type Locality.—Fifteen kilometers west of Piedras Negras, Veracruz, México. Altitude, 300 feet. *Range.*—Vicinity of type locality on arid coastal plain of lowlands of central Veracruz, México.

Mephitis macroura milleri Mearns†*

1897. *Mephitis milleri* Mearns, Preliminary diagnoses of new mammals of the genera *Mephitis, Dorcelaphus,* and *Dicotyles,* from the Mexican border of the United States, p. 1, Feb. 11, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 467, Dec. 24, 1897.)

1901. *Mephitis macroura milleri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 334, Nov. 12, 1901.

Type Locality.—Fort Lowell, near Tucson, Pima County, Ariz. *Range.*—Southern Arizona, southwestern New Mexico (V. Bailey, North Amer. Fauna, No. 53 (December 1931), p. 336, Mar. 1, 1932), southwestern Texas (Blair, Univ. Michigan Mus. Zool. Misc. Publ. 46, p. 24, June 28, 1940), Sonora except perhaps extreme northwestern desert region (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 30, Feb. 15, 1938), and parts of Chihuahua, Sinaloa, Durango, and Coahuila, México.

Mephitis macroura vittata Lichtenstein*

1832. *Mephitis vittata* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere, . . . , pl. 47.

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[1] Synopsis published by Hall and Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 1, No. 24, pp. 575–580, Jan. 20, 1950.

1901. *Mephitis macroura vittata* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 334, Nov. 12, 1901.

Type Locality.—San Mateo del Mar, Oaxaca, México. *Range.*—Known only from type locality; probably ranges over coast region of Oaxaca and Chiapas.

Genus CONEPATUS Gray

1837. *Conepatus* Gray, Mag. Nat. Hist., new ser. vol. 1, p. 581. November 1837. (Type, *Conepatus humboldtii* Gray.)

Subgenus ORYCTOGALE Merriam

1902. *Oryctogale* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 161, Aug. 6, 1902. (Type, *Conepatus leuconotus* (Lichtenstein).)

Conepatus leuconotus leuconotus (Lichtenstein)*

1832. *Mephitis leuconata* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere, . . . , pl. 44, fig. 1.

1902. *Conepatus leuconotus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 161, Aug. 6, 1902.

Type Locality.—Río Alvarado, Veracruz, México. *Range.*—Uncertain, possibly southern Tamaulipas south through Veracruz and eastern Hidalgo (Metlatoyuca) to about lat. 19° N.

Conepatus leuconotus texensis Merriam†*

1884. *Conepatus mapurito* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884. (Part.)

1902. *Conepatus leuconotus texensis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 162, Aug. 6, 1902.

Type Locality.—Brownsville, Cameron County, Tex. *Range.*—Extreme southern Texas, from Laredo to Brownsville on lower Rio Grande, and eastward along coast to Rockport, Aransas County (V. Bailey, North Amer. Fauna No. 25, p. 205, Oct. 24, 1905); southward at least to central Tamaulipas (Dice, Univ. Michigan Studies, Sci. Ser., vol. 12, p. 250, 1937) and El Salto, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 13, July 10, 1950).

Conepatus mesoleucus mesoleucus (Lichtenstein)*

1832. *Mephitis mesoleuca* Lichtenstein, Darstellung neuer oder wenig bekannter Säugethiere, . . . , pl. 44, fig. 2.

1902. [*Conepatus*] *mesoleucus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 163, Aug. 6, 1902.

Type Locality.—Near Chico, Hidalgo, México. *Range.*—Hidalgo (El Chico), Puebla (Río Otlati, 15 kilometers northwest of San Martin; Davis, Journ. Mamm., vol. 25, No. 4, p. 382, Dec. 12, 1944), México (Salazar), and Michoacán (Pátzcuaro) southward through Guerrero (Acapulco and Ometepec) and Oaxaca to Isthmus of Tehuantepec (Huilotepec and Santo Domingo).

Conepatus mesoleucus filipensis Merriam†*

1902. *Conepatus filipensis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 163, Aug. 6, 1902.

1952, *Conepatus mesoleucus filipensis* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 335, Dec. 5, 1952.

Type Locality.—Cerro San Felipe, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Forests of pine and oak on summit of Cerro San Felipe from altitude of 9,000 to 10,500 feet.

Conepatus mesoleucus nicaraguae J. A. Allen†*

1910. *Conepatus nicaraguae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 106, Apr. 30, 1910.

1946. *Conepatus mesoleucus nicaraguus* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 437, Dec. 31, 1946.

Type Locality.—San Rafael del Norte, Jinotega, Nicaragua. Altitude, 5,000 feet. *Range.*—Honduras, Nicaragua, and possibly extending to northern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 437, Dec. 31, 1946).

Conepatus mesoleucus nelsoni Goldman†*

1922. *Conepatus mesoleucus nelsoni* Goldman, Journ. Mamm., vol. 3, No. 1, p. 41, Feb. 8, 1922.

Type Locality.—Armería (near Manzanillo), Colima, México. Altitude, 200 feet. *Range.*—Region of type locality and probably adjacent parts of western México. Zonal range, Arid Tropical.

Coneplatus mesoleucus pediculus Merriam†*

1902. *Conepatus pediculus* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 164, Aug. 6, 1902.

1952. *Conepatus mesoleucus pediculus* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 335, Dec. 5, 1952.

Type Locality.—Sierra Guadalupe, Coahuila, México. *Range.*—Recorded also at San Juan, Nuevo León (Koestner, Great Basin Naturalist, vol. 2, No. 1, p. 10, Feb. 20, 1941).

Conepatus mesoleucus sonoriensis Merriam†*

1902. *Conepatus sonoriensis* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 162, Aug. 6, 1902.

1952. *Conepatus mesoleucus sonoriensis* Hall and Kelson, Univ. Kansas Publ. Mus. Nat. Hist., vol. 5, No. 25, p. 335, Dec. 5, 1952.

Type Locality.—Camoa, Río Mayo, Sonora, México. *Range.*—Northwestern México from Valparaiso Mountains in southwestern Zacatecas, northwesterly through Sinaloa (Santa Cruz de Alaya) into southern Sonora (Camoa).

Conepatus mesoleucus mearnsi Merriam†*

1902. *Conepatus mesoleucus mearnsi* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 163, Aug. 6, 1902.

Type Locality.—Mason, Mason County, Tex. *Range.*—Tableland of México and adjacent southern part of United States, from Jalisco (Ameca, Guadalajara and Zapotlán) and southwestern San Luis Potosí (mountains near Jesús María) northward to central Texas (Llano, Mason, and San Angelo) and through Valleys of Pecos and Rio Grande to Jicarillo Mountains, Socorro County, and head of Mimbres River in New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 337, Mar. 1, 1932). Recorded also in Liberty, Hardin, and Jasper Counties in Big Thicket region of southeastern Texas (Taylor and Davis, Texas Game, Fish, and Oyster Comm. Bull. 27, p. 29, August 1947).

Conepatus mesoleucus venaticus Goldman†*

1922. *Conepatus mesoleucus venaticus* Goldman, Journ. Mamm., vol. 3, No. 1, p. 40, Feb. 8, 1922.

Type Locality.—Cosper Ranch, Blue River, 12 miles south of Blue, Greenlee County, Ariz. Altitude, 5,000 feet. *Range.*—From Camp Verde, Tucson, and Nogales in southeastern Arizona eastward to Animas Valley and Dry Creek near Gila River in southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 338, Mar. 1, 1932); south to northern Sonora (Aguazarca) and northern Chihuahua (Colonia García), México. Zonal range, mainly Upper and Lower Sonoran.

Conepatus mesoleucus figginsi F. W. Miller*

1925. *Conepatus mesoleucus figginsi* F. W. Miller, Journ. Mamm., vol. 6, No. 1, p. 50, Feb. 9, 1925.

Type Locality.—Furnace Canyon, western Baca County, Colo. *Range.*—Warm Sonoran Zone valleys of Baca and Las Animas Counties, Colo.; limits of range unknown.

Conepatus mesoleucus fremonti F. W. Miller

1933. *Conepatus mesoleucus fremonti* F. W. Miller, Proc. Colorado Mus. Nat. Hist., vol. 12, p. 1, July 22, 1933.

Type Locality.—Garden Park, near Canyon City, Fremont County, Colo. *Range.*—Warm Sonoran Zone valleys tributary to the Arkansas River in Fremont and El Paso Counties, Colo.

Conepatus mesoleucus telmalestes V. Bailey†*

1905. *Conepatus mesoleucus telmalestes* V. Bailey, North Amer. Fauna No. 25, p. 203, Oct. 24, 1905.

Type Locality.—Big Thicket, 7 miles northeast of Sour Lake, Hardin County, Tex. *Range.*—Big Thicket region of Hardin and Liberty Counties, southeastern Texas.

Subgenus MARPUTIUS Gray

1837. *Marputius* Gray, Mag. Nat. Hist., new ser., vol. 1, p. 581. (Type, *Mephitis chilensis* É. Geoffroy-Saint-Hilaire.)

Conepatus semistriatus conepatl (Gmelin)*

1788. [*Viverra*] *conepatl* Gmelin, Caroli a Linné systema naturae . . ., vol. 1, p. 88.

1902. *Conepatus tropicalis* Merriam†, Proc. Biol. Soc. Washington, vol. 15, p. 164, Aug. 6, 1902. (Motzorongo, Veracruz, México.)

1951. *Conepatus semistriatus conepatl* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 562, July 10, 1951.

Type Locality.—"Nova Hispania" [=México]; restricted to Motzorongo, Veracruz, México (Hershkovitz, loc. cit.). *Range.*—Tropical east coast of southern Veracruz and Tabasco and possibly Campeche, México.

Conepatus semistriatus yucatanicus Goldman†*

1943. *Conepatus tropicalis yucatanicus* Goldman, Proc. Biol. Soc. Washington, vol. 56, p. 89, Oct. 1, 1943.

Type Locality.—La Vega, on mainland coast opposite Isla Cancun, northeastern Quintana Roo, México. *Range.*—Yucatán, Quintana Roo, and Guatemala; limits of range undetermined.

Conepatus semistriatus trichurus Thomas

1902. *Conepatus mapurito* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 48, April 1902. (Not of Gmelin.)

1905. *Conepatus tropicalis trichurus* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 15, p. 585, June 1905.

1951. *Conepatus semistriatus trichurus* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 562, July 10, 1951.

Type Locality.—Bóquete, Volcán de Chiriquí, Chiriquí, Panamá *Range.*—Western Panamá and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 436, 1946).

Subfamily LUTRINAE (otters)

Genus LUTRA[2] Brisson

1762. *Lutra* Brisson, Regnum animale . . . , ed. 2, p. 201. (Type, *Lutra* Brisson=*Mustela lutra* Linnaeus.)

1772. *Lutra* Brünnich Zoologiae Fundamenta . . . , p. 42. (Type, "Odderen"=*Mustela lutra* Linnaeus.)

Lutra canadensis canadensis (Schreber)*

1776. *Mustela lutra canadensis,* Schreber, Die Säugthiere . . . , Theil 3, Heft 18, pl. 126b.

1823. *Lutra canadensis* Sabine, *in* Franklin, Narrative of a journey to the shores of the Polar Sea in . . . 1819–22, p. 653.

1863. *Lutra destructor* Barnston†, Canadian Nat. Geol., vol. 8, No. 2, p. 152, April 1863. (Michipicoten Island, Lake Superior, Ontario, Canada.)

1884. *Lutra canadensis* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 609, Nov. 29, 1884.

Type Locality.—Eastern Canada (=Province of Quebec). *Range.*—Formerly widely distributed in all parts of eastern Canada south of central Quebec that are well forested and watered, and still exists sporadically in many settled districts from Cape Breton Island, Nova Scotia, to western Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 69 (Jan. 24, 1947); south to Connecticut (Goodwin, Connecticut Geol. Nat. Hist. Surv. Bull. 53, p. 72, 1935), streams and lakes of higher mountains of Pennsylvania and New Jersey (Rhoads, The mammals of Pennsylvania and New Jersey, . . ., p. 157, 1903), and in Appalachian Mountains to northern Georgia; and from northern Minnesota, Wisconsin, and Michigan (Burt, Mammals of Michigan, p. 148, 1946) south to Tennessee and Alabama (A. H. Howell, North Amer. Fauna No. 45, p. 40, Oct. 28, 1921); intergrading with *preblei* in east-central Manitoba (Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 179, Nov. 15, 1935).

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[2] Revised by H. Pohle, Arch. Naturg., Jahrg. 85, Abt. A, No. 9, pp. 1–247, December 1920. Brisson's Regnum animale . . . , regarded as non-Linnaean and not consistently binomial by Hopwood, Proc. Zool. Soc. London, vol. 117, pts. 2–3, pp. 534, 535, Oct. 30, 1947. See also Hershkovitz, Proc. Biol. Soc. Washington, vol. 62, p. 12, Mar. 17, 1939.

Lutra canadensis degener Bangs

1898. *Lutra degener* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 35, Mar. 24, 1898.

1920. *Lutra canadensis degener* Pohle, Arch. Naturg., Jahrg. 85, Abt. A, No. 9, p. 94, December 1920.

Type Locality.—Bay St. George, Newfoundland. *Range.*—Known from Newfoundland only.

Lutra canadensis chimo Anderson

1945. *Lutra canadensis chimo* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1944, p. 59, Nov. 3, 1945.

Type Locality.—Chimo, Ungava District, Quebec, about 30 miles south of tip of Ungava Bay, Quebec, Canada. *Range.*—Northern Labrador and northern Quebec in wooded districts from Chimo, Ungava Bay south to Hamilton River and Lake Mistassini southeast of James Bay; on Labrador coast as far north as Okkak, and on east side of Hudson Bay as far north as Little Whale River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 70, Jan. 24, 1947).

Lutra canadensis preblei Goldman†*

1935. *Lutra canadensis preblei* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 178, Nov. 15, 1935.

Type Locality.—Near McTavish Bay, Great Bear Lake (on canoe route from Lake Hardisty), Mackenzie District, Northwest Territories, Canada. *Range.*—Mackenzie River Basin and east to Hudson Bay; south to Alberta, Saskatchewan, and western Manitoba.

Lutra canadensis yukonensis Goldman†*

1935. *Lutra canadensis yukonensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 180, Nov. 15, 1935.

Type Locality.—Unalakleet, Norton Sound, Alaska. *Range.*—Bering Sea coast, Alaska Peninsula, Kuskokwim and Yukon River drainage, east to central Yukon, Canada.

Lutra canadensis extera Goldman†*

1935. *Lutra canadensis extera* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 181, Nov. 15, 1935.

Type Locality.—Nagai Island, Shumagin Islands, Alaska. *Range.*—Known from Nagai Island only.

Lutra canadensis kodiacensis Goldman†*

1935. *Lutra canadensis kodiacensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 180, Nov. 15, 1935.

Type Locality.—Uyak Bay, Kodiak Island, Alaska. *Range.*—Kodiak and Afognak Islands, Alaska.

Lutra canadensis optiva Goldman†*

1935. *Lutra canadensis optiva* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 179, Nov. 15, 1935.

Type Locality.—Zaikof Bay, Montague Island, Alaska. *Range.*—Montague and Hinchinbrook Islands and adjacent Kenai Peninsula.

Lutra canadensis periclyzomae Elliot*

1905. *Lutra periclyzomac* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 80, Feb. 21, 1905.

1909. *Lutra canadensis periclyzomae* E. Heller, Univ. California Publ. Zool., vol. 5, No. 2, p. 262, Feb. 18, 1909.

Type Locality.—Gawi, west coast of Moresby Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Known from Queen Charlotte Islands only.

Lutra canadensis evexa Goldman†*

1935. *Lutra canadensis evexa* Goldman, Proc. Biol. Soc. Washington, vol. 48, Nov. 15, 1935.

Type Locality.—Stuart Lake, near headwaters of Fraser River, British Columbia, Canada. *Range.*—Western slope of Rocky Mountains in central British Columbia.

Lutra canadensis vancouverensis Goldman†*

1935. *Lutra vancouverensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 186, Nov. 15, 1935.

1948. *Lutra canadensis vancouverensis* Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 210, Apr. 9, 1948.

Type Locality.—Quatsino, northwestern Vancouver Island, British Columbia, Canada. *Range.*—Vancouver Island, British Columbia; and San Juan Islands of northern Puget Sound and adjacent marine waters (Dalquest, loc. cit.).

Lutra canadensis pacifica Rhoads*

1898. *Lutra hudsonica pacifica* Rhoads, Trans. Amer. Philos. Soc., new ser., vol. 19, p. 429, September 1898.

1898. *Lutra canadensis pacifica* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 460, Nov. 10, 1898.

Type Locality.—Lake Keechelus, Kittitas County, Wash. Altitude, 3,000 feet. *Range.*—From Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 301, Aug. 29, 1936) and Washington north along western side of Coast Range in British Columbia to southeastern Alaska (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 70, Jan. 24, 1947).

Lutra canadensis brevipilosus Grinnell*

1914. *Lutra canadensis brevipilosus* Grinnell, Univ. California Publ. Zool., vol. 12, No. 8, p. 306, Oct. 31, 1914.

Type Locality.—Grizzly Island, Suisun Bay, Solano County, Calif. *Range.*—Streams and marshes in the Great Valley of California north from Tulare County, and near coast north from San Francisco Bay into Oregon (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 1, p. 274, Aug. 10, 1937); and western Nevada in lakes and streams flowing eastward from Sierra Nevada (Hall, Mammals of Nevada, p. 198, July 1, 1946).

Lutra canadensis nexa Goldman†*

1935. *Lutra canadensis nexa* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 182, Nov. 15, 1935.

Type Locality.—Near Deeth, Humboldt River, Elko County, Nev. *Range.*—Humboldt and upper Snake River Basins in southeastern Oregon, southern Idaho, and northeastern Nevada (Hall, Mammals of Nevada, p. 196, July 1, 1946), and probably adjoining western slopes of Rocky Mountains. Recorded also from northern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 434, Aug. 10, 1952).

Lutra canadensis sonora Rhoads

1898. *Lutra hudsonica sonora* Rhoads, Trans. Amer. Philos. Soc., new ser., vol. 19, p. 431, September 1898.

1898. *Lutra canadensis sonora* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 460, Nov. 10, 1898.

Type Locality.—Montezuma Well, Beaver Creek, Yavapai County, Ariz. *Range.*—From Colorado River in California to southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 323, Mar. 1, 1932); north along Colorado River and perhaps originally along Virgin River into southeastern Nevada (Hall, Mammals of Nevada, p. 199, July 1, 1946).

Lutra canadensis interior Swenk*

1920. *Lutra canadensis interior* Swenk, Univ. Studies Nebraska, vol. 18 (1918), No. 1, p. 2, May 15, 1920.

Type Locality.—Lincoln Creek, west of Seward, Seward County, Nebr. *Range.*—Mississippi Valley from Kansas (Black, Kansas State Board Agric. Thirtieth Biennial Rep., 1935–1936, p. 158, 1937) northward presumably to North Dakota and to Sherburne County, Minn. (Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 179, Nov. 15, 1935); possibly occurring east of Mississippi River in western Mississippi and Tennessee (Hamilton, The mammals of eastern United States, . . . , p. 153, 1943).

Lutra canadensis texensis Goldman†*

1935. *Lutra canadensis texensis* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 184, Nov. 15, 1935.

Type Locality.—Twenty miles west of Angleton, Brazoria County, Tex. *Range.*—Lower Mississippi River Valley in Louisiana and doubtless Mississippi, and west in Gulf coast region at least to Bay City, Tex.

Lutra canadensis vaga Bangs*

1898. *Lutra hudsonica vaga* Bangs, Proc. Boston Soc. Nat. Hist., vol. 28, p. 224, March 1898.

1898. *Lutra canadensis vaga* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 460, Nov. 10, 1898.

Type Locality.—Micco, Brevard County, Fla. *Range.*—Florida and southern Georgia.

Lutra canadensis lataxina F. Cuvier*

1823. *Lutra lataxina* F. Cuvier, *in* Dictionnaire des sciences naturelle . . . , vol. 27, p. 242.

1898. *Lutra hudsonica lataxina* Rhoads, Trans. Amer. Philos. Soc., new ser., vol. 19, p. 427, September 1898.

1898. *Lutra canadensis lataxina* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 10, p. 460, Nov. 10, 1898.

Type Locality.—South Carolina. *Range.*—Coastal Plain and Piedmont Provinces of southeastern United States from New Jersey south to South Carolina (Handley and Patton, Wild mammals of Virginia, p. 134, 1947).

Lutra mira Goldman†*

1935. *Lutra mira* Goldman, Proc. Biol. Soc. Washington, vol. 48, p. 185, Nov. 15, 1935.

Type Locality.—Kasaan Bay, Prince of Wales Island, Alaska. *Range.*—Alexander Archipelago and probably adjacent mainland, southeastern Alaska.

Lutra annectens annectens Major*

1884. *Lutra felina* and *Lutra brasiliensis* True, Proc. U. S. Nat. Mus., vol. 7, (App., Circ. 29), p. 609, Nov. 29, 1884.

1897. *Lutra annectens* Major, Zool. Anzeiger, vol. 20, p. 142, Apr. 26, 1897; Ann. Mag. Nat. Hist., ser. 6, vol. 19, p. 618, June 1897.

Type Locality.—Río de Tepic, Nayarit, México. *Range.*—Nayarit south at least to Isthmus of Tehuantepec (Santa Efigenia), Oaxaca, México.

Lutra annectens latidens J. A. Allen*

1908. *Lutra latidens* J. A. Allen, Bull. Amer Mus. Nat. Hist., vol. 24, p. 660, Oct. 13, 1908.

1920. *Lutra annectens latidens* Pohle, Arch. Naturg., Jahrg. 85, Abt. A, No. 9, p. 95, December 1920.

Type Locality.—Lavala [Savala], Matagalpa, Nicaragua. *Range.*—Nicaragua, Honduras, and possibly northern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 433, Dec. 31, 1946). Recorded also from a small river west of Mérida, Yucatán, México (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 561, July 10, 1951).

Lutra annectens mesopotes (Cabrera)

1924. *Lontra mesopotes* Cabrera, Bol. Real Soc. Española Hist. Nat., Madrid, vol. 24, p. 52, February 1924.

Type Locality.—Costa Rica. *Range.*—Limits of range unknown.

Lutra annectens repanda Goldman†*

1914. *Lutra repanda* Goldman, Smithsonian Misc. Coll., vol. 63, No. 5, p. 3, Mar. 14, 1914.

1920. *Lutra annectens repanda* Pohle, Arch. Naturg., Jahrg. 85, Abt. A, No. 9, p. 96, December 1920.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Panamá and Costa Rica (Goodwin, Amer. Mus. Nat. Hist., vol. 87, p. 433, Dec. 31, 1946).

Subfamily ENHYDRINAE (sea-otters)

Genus ENHYDRA[8] Fleming

1822. *Enhydra* Fleming, The Philosophy of Zoology; . . . , vol. 2, p. 187. (Type, *Mustela lutris* Linnaeus.)

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[8] On account of the existence of the earlier name *Enhydris* (Merrem, 1820), applied to another genus, *Enhydra* has been replaced by *Latax* Gloger (Nova Acta Phys.-Med. Acad. Caesar. Leop.-Carol., vol. 13, pt. 2, p. 511, 1827). This is not in accordance with the provisions of the International Code of Zoological Nomenclature, art. 36, with accompanying recommendation, and Opinion 25 of the International Commission of Zoological Nomenclature (Smithsonian Inst. Spec. Publ. 1938, pp. 59–61, July 1910).

Enhydra lutris lutris (Linneaus) *

1758. [*Mustela*] *lutris* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 45.

1843. *Enhydra lutris* Gray, List of . . . Mammalia in the . . . British Museum, p. 72.

1884. *Enhydris lutris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 609, Nov. 29, 1884.

Type Locality.—Kamchatka. *Range.*—Kamchatka to western Aleutian Islands, Alaska.

Enhydra lutris nereis (Merriam) †*

1904. *Latax lutris nereis* Merriam, Proc. Biol. Soc. Washington, vol. 17, p. 159, Oct. 6, 1904. (Regarded as invalid by Scheffer and Wilke, Journ. Washington Acad. Sci., vol. 40, No. 8, p. 272, Aug. 15, 1950. According to Pohle, Arch. Naturg., Jahrg. 85, Abt. A, No. 9, p. 170, 1919, the name *nereis* is antedated by *Lutra gracilis* Bechstein, Thomas Pennant's allgemeine Uebersicht der vierfüssigen Thiere . . . , p. 408, 1800. Hollister, Journ. Mamm., vol. 2, No. 3, p. 177, Aug. 19, 1921, regards the name *gracilis* as a synonym of *Mustela lutris* Linnaeus. Staten Island [= Isla de los Estados], the type locality for *gracilis*, is separated from Tierra del Fuego by Le Maire Strait and the description seems applicable to the South American otter.)

1923. *Enhydra lutris nereis* Grinnell, Univ. California Publ. Zool., vol. 21, No. 10, p. 316, Jan. 27, 1923.

Type Locality.—San Miguel Island, Santa Barbara Islands, Calif. *Range.*—Ocean around islands and along coasts of Washington, Oregon (V. Bailey, North Amer. Fauna No. 56 (June), p. 303, Aug. 29, 1936), California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 104, Sept. 26, 1933), and Baja California at least as far south as Sebastián Vizcaino Bay (Scammon, The marine mammals of the northwestern coast of North America, p. 169, 1874).

Superfamily FELOIDEA

Family VIVERRIDAE

Subfamily HERPESTINAE (mongooses)

Genus HERPESTES Illiger

1811. *Herpestes* Illiger, Prodromus systematis Mammalium et Avium . . . , p. 135. (Type, *Viverra ichneumon* Linnaeus. For use of this name in place of *Mungos* É. Geoffroy-Saint-Hilaire and G. Cuvier see J. A. Allen, Journ. Mamm., vol. 1, No. 1, pp. 27–30, Nov. 28, 1918.)

Herpestes auropunctatus auropunctatus (Hodgson) *

1836. *Mangusta auropunctata* Hodgson, Journ, Asiatic Soc. Bengal, vol. 5, p. 235.

1911. *Mungos birmanicus* G. M. Allen, Bull. Mus. Comp. Zool., vol. 54, p. 217, July 1911. (Misidentification of the mongoose introduced in the West Indies.)

1937. *Herpestes javanicus auropunctatus* Pocock, Journ. Bombay Nat. Hist. Soc., vol. 39, No. 2, p. 242, Apr. 15, 1937. (Reidentification of the mongoose introduced in the West Indies.)

1951. *Herpestes auropunctatus auropunctatus* Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 295, Nov. 19, 1951.

Type Locality.—Nepal. Introduced and widely established in the West Indies.

Family FELIDAE (cats)

Genus FELIS[4] Linnaeus

1857. *Felis* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 41. (Type by tautonymy, *Felis catus* Linnaeus.)

pardus—group[5] (jaguars)

Felis onca centralis Mearns†*

1901. *Felis centralis* Mearns, Proc. Biol. Soc. Washington, vol. 14, p. 139, Aug. 9, 1901.

1910. *Felis onca centralis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 127, Apr. 30, 1910.

1939. *Panthera onca centralis* Pocock, Nov. Zool., vol. 41, No. 4, p. 419, Oct. 31, 1939.

Type Locality.—Talamanca, Limón, Costa Rica (probably near Sipurio, in the valley of Río Sixaola). *Range.*—Central America north to El Salvador and along Pacific coast probably to near Isthmus of Tehuantepec; south to Guaduas, Cundinamarca, Colombia.

Felis onca goldmani Mearns†*

1901. *Felis hernandesii goldmani* Mearns, Proc. Biol. Soc. Washington, vol. 14, p. 142, Aug. 9, 1901.

1932. *Felis onca goldmani* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 144, Sept. 9, 1932.

1939. *Panthera onca goldmani* Pocock, Nov. Zool., vol. 41, No. 4, p. 421, Oct. 31, 1939.

Type Locality.—Yohaltún, Campeche, México. *Range.*—The Peninsula of Yucatán, south to northern Guatemala; and recorded at Punta Gorda, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 564, July 10, 1951).

Felis onca hernandesii (Gray)*

1858. *Leopardus hernandesii* Gray, Proc. Zool. Soc. London, 1857, pt. 25, p. 278, Jan. 28, 1858.

1884. *Felis onca* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1901. *Felis hernandesii* Mearns, Proc. Biol. Soc. Washington, vol. 14, p. 141, Aug. 9, 1901.

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[4] The species are arranged according to the groups recognized by Cabrera, Revista Chilena Hist. Nat., vol. 15, pp. 41–42, February 1911. On this subject see also Pocock, Ann. Mag. Nat. Hist., ser. 8, vol. 20, pp. 329–350, November 1917; and J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 41, pp. 335–340, Sept. 22, 1919, and pp. 341–419, Oct. 3, 1919.

[5] The genus *Panthera* of Pocock. Revised by Nelson and Goldman, Journ. Mamm., vol. 14, No. 3, pp. 221–240, Aug. 17, 1933. Reviewed (under name *Panthera*) by Pocock, Nov. Zool., vol. 41, No. 4, pp. 406–422, Oct. 31, 1939.

1932. *Felis onca hernandesii* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 144, Sept. 9, 1932.

1939. *Panthera onca hernandesii* Pocock, Nov. Zool., vol. 41, No. 4, p. 420, Oct. 31, 1939.

Type Locality.—Mazatlán, Sinaloa, México. *Range.*—Western México from Sinaloa south to Isthmus of Tehuantepec.

Felis onca veraecrucis Nelson and Goldman†*

1933. *Felis onca veraecrucis* Nelson and Goldman, Journ. Mamm., vol. 14, No. 3, p. 236, Aug. 17, 1933.

1939. *Panthera onca veraecrucis* Pocock, Nov. Zool., vol. 41, No. 4, p. 421, Oct. 31, 1939.

Type Locality.—San Andrés Tuxtla, Veracruz, México. *Range.*—Gulf slope of eastern and southeastern México from coast region of Tabasco north through Veracruz and Tamaulipas to central Texas.

Felis onca arizonensis Goldman†*

1932. *Felis onca arizonensis* Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 144, Sept. 9, 1932.

1939. *Panthera onca arizonensis* Pocock, Nov. Zool., vol. 41, No. 4, p. 420, Oct. 31, 1939.

Type Locality.—Near Cibecue, Navajo County, Ariz. *Range.*—Mountainous parts of eastern Arizona north to the Grand Canyon, southern half of western New Mexico, and northeastern Sonora, México.

pardalis—group [6] (ocelots)

Felis pardalis pardalis Linnaeus*

1758. [*Felis*] *pardalis* Linnaeus, Systema naturae,, ed. 10, vol. 1, p. 42.

1855. *Felis griffithii* Fischer, Synopsis Mammalium, p. 369 (=569). (Probably from México. See Goldman, Journ. Mamm., vol. 24, No. 3, p. 375, Aug. 17, 1943.)

1884. *Felis pardalis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884.

1906. *Felis pardalis pardalis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 221, July 25, 1906.

1911. *? Felis buffoni* Brass, Aus dem Reiche der Pelze, p. 412, April 1911. (México.)

1911. *? Felis mexicana* Brass, Aus dem Reiche der Pelze, p. 412, April 1911. (México. Not of Desmarest, 1820, or Saussure, 1860. *Felis buffoni* and *F. mexicana* are regarded as unidentifiable by Goldman, Journ. Mamm., vol. 24, No. 3, p. 375, Aug. 17, 1943).

1941. *Leopardus pardalis pardalis* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 342, Dec. 8, 1941.

Type Locality.—State of Veracruz, México (see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 41, p. 345, Oct. 3, 1919). *Range.*—Tropical lowlands and eastern slopes of interior plateau in Veracruz, south across Isthmus of Tehuantepec and east through Tabasco, Chiapas, and Guatemala to Honduras (Balfate). Recorded also at Tekom, Yucatán, and Sibun River, British Honduras (Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 564, July 10, 1951).

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[6] The genus *Leopardus* of J. A. Allen. Revised (under name *Leopardus*) by Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, pp. 321–352, Dec. 8, 1941; reviewed by Goldman, Journ. Mamm., vol. 24, No. 3, pp. 372–385, Aug. 17, 1943.

Felis pardalis mearnsi J. A. Allen†*

1902. *Felis costaricensis* Mearns, Proc. U. S. Nat. Mus., vol. 25, p. 245, Sept. 17, 1902. (Not *Felis bangsi costaricensis* Merriam, 1901.)

1904. *Felis mearnsi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 71, Feb. 29, 1904. (Substitute for *costaricensis* Mearns.)

1909. *Felis pardalis mearnsi* Lyon and Osgood, Bull. U. S. Nat. Mus., No. 62, p. 208, Jan. 28, 1909.

1941. *Leopardus pardalis mearnsi* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 339, Dec. 8, 1941.

Type Locality.—Talamanca, Limón, Costa Rica. *Range.*—Panamá, Costa Rica, and Nicaragua.

Felis pardalis nelsoni Goldman†*

1925. *Felis pardalis nelsoni* Goldman, Journ. Mamm., vol. 6, No. 2, p. 122, May 12, 1925.

Type Locality.—Manzanillo, Colima, México. Altitude, 50 feet. *Range.*—Pacific coastal lowlands and western slope of mountains of interior from southern Oaxaca (Puerto Angel) north to southern Sinaloa (Escuinapa).

Felis pardalis sonoriensis Goldman†*

1925. *Felis pardalis sonoriensis* Goldman, Journ. Mamm., vol. 24, No. 3, p. 378, Aug. 17, 1925.

1941. *Leopardus pardalis griseus* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 346, Dec. 8, 1941. (*Leopardus griseus* Gray, Ann. Mag. Nat. Hist., vol. 10, p. 260, December 1842, antedates *Felis pardalis sonoriensis* according to Pocock. Goldman, Journ. Mamm., vol. 24, No. 3, p. 376, Aug. 17, 1943, places *Leopardus griseus* Gray in the synonymy of *Felis pardalis pardalis.*)

Type Locality.—Camoa, Río Mayo, Sonora, México. Altitude, 800 feet. *Range.*—Warmer western slopes of Sierra Madre from southern Sonora, and probably northern Sinaloa, north to southeastern Arizona; formerly as far north as Fort Verde, Ariz.; absent in arid plains region of western Sonora.

Felis pardalis albescens Pucheran*

1855. *Felis albescens* Pucheran, *in* I. Geoffroy-Saint-Hilaire, Mammiféres, *in* Petit-Thouars, Voyage autour du monde sur . . . la *Vénus* . . . , Zoologie, text p. 149, atlas pl. 8.

1901. *Felis limitis* Mearns†, Proc. Biol. Soc. Washington, vol. 14, p. 146, Aug. 9, 1901. (Brownsville, Cameron County, Tex.)

1906. *Felis pardalis albescens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 22, p. 219, July 25, 1906.

1911. *Felis ludoviciana* Brass, Aus dem Reiche der Pelze, p. 411, April 1911. (Alternative for *limitis.*)

1941. *Leopardus pardalis albescens* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 350, Dec. 8, 1941.

Type Locality.—Arkansas. *Range.*—Formerly parts of Arkansas and probably of present State of Louisiana; still ranging in eastern and southern Texas and south into northeastern states of México (Soto la Marina, Tamaulipas). Recorded northward to near Hedley, Donley County, Tex. (Davis, Journ. Mamm., vol. 32, No. 3, p. 363, Aug. 23, 1951).

wiedii—group[7]

Felis wiedii pirrensis Goldman†*

1884. ? *Felis tigrina* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1914. *Felis pirrensis* Goldman, Smithsonian Misc. Coll., vol. 63, No. 5, p. 4, Mar. 14, 1914.

1941. *Leopardus wiedii pirrensis* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 360, Dec. 8, 1941. (Part.)

1943. *Felis weidii pirrensis* Goldman, Journ. Mamm., vol. 24, No. 3, p. 380, Aug. 17, 1943.

Type Locality.—Cana (Santa Cruz de Cana), upper Río Tuyra, Darién, eastern Panamá. Altitude, 2,000 feet. *Range.*—Eastern Panamá, and south perhaps to Ecuador and Perú.

Felis wiedii nicaraguae (J. A. Allen)*

1919. *Margay glaucula nicaraguae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 41, p. 357, Oct. 3, 1919. (Regarded as identical with *pirrensis* by Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 360, Dec. 8, 1941.)

1943. *Felis wiedii nicaraguae* Goldman, Journ. Mamm., vol. 24, No. 3, p. 381, Aug. 17, 1943.

Type Locality.—Volcán de Chinandega, Chinandega, western Nicaragua. *Range.*—Nicaragua, Honduras, and Costa Rica.

Felis wiedii salvinia (Pocock)

1941. *Leopardus wiedii salvinia* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 366, Dec. 8, 1941.

1943. *Felis wiedii salvinia* Goldman, Journ. Mamm., vol. 24, No. 3, p. 382, Aug. 17, 1943.

Type Locality.—Vera Paz, Guatemala. *Range.*—Guatemala and perhaps British Honduras.

Felis wiedii yucatanica Nelson and Goldman†*

1931. *Felis glaucula yucatanica* Nelson and Goldman, Journ. Mamm., vol. 12, No. 3, p. 304, Aug. 24, 1931.

1941. *Leopardus wiedii yucatanica* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 368, Dec. 8, 1941.

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[7] Revised (under name *Leopardus*) by Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, pp. 352–369, Dec. 8, 1941. North American subspecies reviewed by Goldman, Journ. Mamm., vol. 24, No. 3, pp. 380–385, Aug. 17, 1943.

1943. *Felis wiedii yucatanica* Goldman, Journ. Mamm., vol. 24, No. 3, p. 382, Aug. 17, 1943.

Type Locality.—Mérida, northern Yucatán, México. *Range.*—The Peninsula of Yucatán and northern Chiapas; limits of range unknown. Recorded also from Petén, Guatemala (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 22, July 15, 1935).

Felis wiedii oaxacensis Nelson and Goldman†*

1931. *Felis glaucula oaxacensis* Nelson and Goldman, Journ. Mamm., vol. 12, No. 3, p. 303, Aug. 24, 1931. (Regarded as identical with *glaucula* by Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 367, Dec. 8, 1941.)

1943. *Felis wiedii oaxacensis* Goldman, Journ. Mamm., vol. 24, No. 3, p. 383, Aug. 17, 1943.

Type Locality.—Cerro San Felipe, near Oaxaca, Oaxaca, México. Altitude, 10,000 feet. *Range.*—Oaxaca, Veracruz, and San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 13, July 10, 1950).

Felis wiedii glaucula Thomas*

1903. *Felis glaucula* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 12, p. 235, August 1903.

1941. *Leopardus wiedii glaucula* Pocock, Field Mus. Nat. Hist. Publ. 511, Zool. Ser., vol. 27, p. 367, Dec. 8, 1941. (Part.)

1943. *Felis wiedii glaucula* Goldman, Journ. Mamm., vol. 24, No. 3, p. 384, Aug. 17, 1943.

Type Locality.—Beltran, Jalisco, México. *Range.*—Western México, from Jalisco north to southern Sinaloa; limits of range unknown.

Felis wiedii cooperi Goldman†*

1943. *Felis wiedii cooperi* Goldman, Journ. Mamm., vol. 24, No. 3, p. 384, Aug. 17, 1943.

Type Locality.—Eagle Pass, Maverick County, Tex. *Range.*—Known only from type locality, but probably has an extended range in northeastern México.

pardinoides—group [8]

Felis pardinoides oncilla Thomas

1903. *Felis pardinoides oncilla* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 12, p. 237, August 1903.

1904. *Felis carrikeri* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 47, Feb. 29, 1904. (Pozo Azul, Río Pirris, San José Province, Costa Rica. According to J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 21, p. 359, Oct. 3, 1919, this is apparently a melanism of *Felis pardinoides oncilla* Thomas. See also, Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 442, Dec. 31, 1946.)

Type Locality.—Volcán de Irazú, Cartago, Costa Rica. *Range.*—Known from Costa Rica only.

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[8] The genus *Oncilla* of J. A. Allen.

concolor—group[9] (pumas)

Felis concolor couguar Kerr*

1792. *Felis couguar* Kerr, The animal kingdom, . . . , p. 151.

1884. *Felis concolor* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 610, Nov. 29, 1884. (Part.)

1929. *Felis concolor couguar* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Pennsylvania. *Range.*—Formerly eastern United States as far north as Maine and to southern Ontario and Quebec.

Felis concolor missoulensis Goldman†*

1943. *Felis concolor missoulensis* Goldman, Journ. Mamm., vol. 24, No. 2 (May), p. 229, June 7, 1943.

Type Locality.—Sleeman Creek, about 10 miles southwest of Missoula, Missoula County, Mont. *Range.*—Northern Rocky Mountain region from Yellowstone National Park, Wyo., north to Jasper Park, Alberta, northern Cassiar (Big Muddy River), and Peace River district, British Columbia; east to southwestern Saskatchewan and northwestern North Dakota; west to Wallowa Mountains, northeastern Oregon.

Felis concolor hippolestes Merriam†*

1897. *Felis hippolestes* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 219, July 15, 1897.

1929. *Felis concolor hippolestes* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Wind River Mountains, near head of Big Wind River, Fremont County, Wyo. *Range.*—Rocky Mountain region from Wyoming, except northwestern part, south through southeastern Idaho, northeastern Utah, and Colorado to northern New Mexico. Formerly east in prairie states to undetermined limits.

Felis concolor oregonensis Rafinesque*

1832. *Felix* [sic] *oregonensis* Rafinesque, Atlantic Journ., vol. 1, p. 62, June 20, 1832.

1904. [*Felis*] *concolor oregonensis* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 2, p. 454, Aug. 2, 1904.

1929. *Felis concolor oregonensis* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Ohanapecosh River, Mount Rainier National Park, Pierce County, Wash. *Range.*—Cascade Mountain region from mainland of southwestern British Columbia south through Washington and Oregon, except upper part of Rogue River Valley, to near California boundary, intergrading on east with *missoulensis*, on west in Washington with *olympus*, and on south with *californica.*

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[9] The genus *Puma* of Pocock. Recognizable subspecies rearranged by Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, pp. 346–347, Nov. 11, 1929. Subspecies revised by Goldman, *in* Young and Goldman, The puma, mysterious American cat, pt. 2, pp. 177–276, Nov. 16, 1946.

Felis concolor vancouverensis Nelson and Goldman†*

1932. *Felis concolor vancouverensis* Nelson and Goldman, Proc. Biol. Soc. Washington, vol. 45, p. 105, July 15, 1932.

Type Locality.—Campbell Lake, Vancouver Island, British Columbia. *Range.*—Known from Vancouver Island only.

Felis concolor olympus Merriam†*

1897. *Felis hippolestes olympus* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 220, July 15, 1897.

1946. *Felis concolor olympus* Goldman, *in* Young and Goldman, The puma, mysterious American cat, pt. 2, p. 216, Nov. 16, 1946.

Type Locality.—Lake Cushman, Olympic Mountains, Mason County, Wash. *Range.*—Olympic Peninsula region of western Washington, intergrading to the east with *oregonensis.*

Felis concolor californica May*

1896. *Felis californica* [May], California game "marked down," p. 22.

1923. *Felis oregonensis californica* Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 11, p. 325, Apr. 7, 1923.

1929. *Felis concolor californicus* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Kern County, Calif. Probably the Kern River basin in the Sierra Nevada. *Range.*—California, except desert region in southeastern part, north to closely adjoining portions of Oregon, except coast region, and south to include Sierra Juárez and Sierra San Pedro Mártir region of northwestern Baja California; altitudinal range from sea level to near timber line on high mountains.

Felis concolor kaibabensis Nelson and Goldman†*

1931. *Felis concolor kaibabensis* Nelson and Goldman, Journ. Washington Acad. Sci., vol. 21, p. 209, May 19, 1931.

Type Locality.—Powell Plateau, Grand Canyon National Park, Coconino County, Ariz. Altitude, 8,700 feet. *Range.*—Kaibab Plateau north of Grand Canyon of Colorado River in northwestern Arizona, Nevada, and Utah, excepting northern and northeastern parts.

Felis concolor browni Merriam†*

1903. *Felis aztecus browni* Merriam, Proc. Biol. Soc. Washington, vol. 16, p. 73, May 29, 1903.

1929. *Felis concolor browni* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Lower Colorado River, 12 miles south of Yuma, Yuma County, Ariz. *Range.*—Desert plains and low mountains of Colorado River Valley in southwestern Arizona, southeastern California, northeastern Baja California, and northwestern Sonora. Zonal range, mainly Lower Sonoran.

Felis concolor improcera Phillips

1912. *Felis improcera* Phillips, Proc. Biol. Soc. Washington, vol. 25, p. 85, May 4, 1912.

1929. *Felis concolor improcera* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Calmallí, Baja California, México. *Range.*—Vizcaíno Desert region and south to mountains of Cape region, Baja California.

Felis concolor azteca Merriam†*

1901. *Felis hippolestes aztecus* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 592, Dec. 11, 1901.

1929. *Felis concolor azteca* Nelson and Goldman, Journ. Mamm., vol. 10,

Type Locality.—Colonia García, about 60 miles southwest of Casas Grandes, Chihuahua, México. Altitude, 6,700 feet. *Range.*—New Mexico, Arizona south of Colorado River, except southwestern portion, and south over mainland of México at least to Jalisco. Vertical range from sea level to timber line on high mountains.

Felis concolor stanleyana Goldman†*

No. 4, p. 347, Nov. 11, 1929.

1936. *Felis concolor youngi* Goldman, Proc. Biol. Soc. Washington, vol. 49, p. 137, Aug. 22, 1936. (Not *Felis youngi* Pei, Palaeont. Sinica, ser. c, vol. 8, fasc. 1, p. 133, May 1934.)

1938. *Felis concolor stanleyana* Goldman, Proc. Biol. Soc. Washington, vol. 51, p. 63, Mar. 18, 1938. (Substitute for *youngi* Goldman).

Type Locality.—Bruni Ranch, near Bruni, southeastern Webb County, Tex. *Range.*—Texas and northeastern México, intergrading on west with *azteca* and on east with *coryi.*

Felis concolor coryi Bangs*

1896. *Felis concolor floridana* Cory, Hunting and fishing in Florida, . . . , p. 109. (Not *Felis floridana* Desmarest, 1820.)

1899. *Felis coryi* Bangs, Proc. Biol. Soc. Washington, vol. 13, p. 15, Jan. 31, 1899. (Renaming of *floridana* Cory.)

1911. *Felis arundivaga* Hollister†, Proc. Biol. Soc. Washington, vol. 24, p. 176, June 16, 1911. (Twelve miles southwest of Vidalia, Concordia Parish, La.)

1929. *Felis concolor coryi* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.—Goldman, *in* Young and Goldman, The puma, mysterious American cat, pt. 2, p. 234, Nov. 16, 1946.

Type Locality.—Wilderness back of Sebastian, Brevard County, Fla. *Range.*—Isolated parts of southern Florida and perhaps of northeastern Louisiana; formerly doubtless from eastern Texas or western Louisiana and lower Mississippi River Valley east through Southeastern States in general, intergrading on the north with *couguar,* and to the west and northwest with *stanleyana* and *hippolestes.*

Felis concolor mayensis Nelson and Goldman†*

1929. *Felis concolor mayensis* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 350, Nov. 11, 1929.

Type Locality.—La Libertad, Petén, Guatemala. *Range.*—Mainly tropical forested areas from southern México (Veracruz) south to Guatemala, doubtless intergrading with *costaricensis* farther south in Honduras. Recorded also from El Cayo (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 22, July 15, 1935) and Commerce Bight, British Honduras (Hershkovitz, Fieldiana–Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 564, July 10, 1951).

Felis concolor costaricensis Merriam*

1901. *Felis bangsi costaricensis* Merriam, Proc. Washington Acad. Sci., vol. 3, p. 596, Dec. 11, 1901.

1929. *Felis concolor costaricensis* Nelson and Goldman, Journ. Mamm., vol. 10, No. 4, p. 347, Nov. 11, 1929.

Type Locality.—Bóquete, Chiriquí, Panamá. *Range.*—Tropical forested region (mainly rain forest) from eastern Panamá west to Costa Rica and probably to Nicaragua; limits of range unknown.

yagouaroundi—group[10]

Felis yagouaroundi panamensis J. A. Allen*

1904. *Felis panamensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 71, Feb. 29, 1904. (Regarded by Lönnberg, Arkiv för Zool., vol. 29A, No. 19, p. 10, Aug. 9, 1937, as doubtfully distinct from *Felis yagouaroundi unicolor* Traill, 1819.)

1920. *Herpailurus yagouaroundi* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 170, Apr. 24, 1920.

1946. *Felis yaguarondi panamensis* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 443, Dec. 31, 1946.

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—Panamá and Costa Rica.

Felis yagouaroundi fossata Mearns†*

1901. *Felis fossata* Mearns, Proc. Biol. Soc. Washington, vol. 14, p. 150, Aug. 9, 1901. (Validity questioned by Lönnberg, Arkiv för Zool., vol. 29A, No. 19, pp. 10–11, Aug. 9, 1937; and regarded as identical with *cacomitli* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 564, July 10, 1951.)

1942. *Felis (yagouaroundi) fossata* Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 186, May 29, 1942.

Type Locality.—Mérida. Yucatan. México. *Range.*—Peninsula of Yucatán, México, south to La Paz and Tegucigalpa Provinces, Honduras.

Felis yagouaroundi tolteca Thomas*

1884. *Felis yaguarundi* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884. (Part.)

1898. *Felis yaguarondi tolteca* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 41, January 1898.

Type Locality.—Tatemales, Sinaloa, México. *Range.*—Sinaloa, México, north presumably to Santa Cruz County, Ariz. (Little, Journ. Mamm., vol. 19, No. 4, p. 500, Nov. 14, 1938).

Felis yagouaroundi cacomitli Berlandier†*

1859. *Felis cacomitli* Berlandier, *in* Baird, Mammals of the boundary, *in* Emory, Rep. United States and Mexican boundary survey, . . . , vol. 2, pt. 2, p. 12, January 1859.

1901. *Felis cacomitli* Mearns, Proc. U. S. Nat. Mus., vol. 24, p. 207, Oct. 4, 1901.

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[10] The genus Herpailurus of J. A. Allen.

1901. *Felis apache* Mearns†, Proc. Biol. Soc. Washington, vol. 14, p. 150, Aug. 9, 1901. (Matamoros, Tamaulipas, México. Regarded by V. Bailey, North Amer. Fauna No. 25, p. 167, Oct. 24, 1905, as the red phase of *F. cacomitli.*)

1905. *Felis jaguarondi cacomitli* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 370, Dec. 6, 1905.

Type Locality.—Matamoros, Tamaulipas, México. *Range.*—Extreme southern Texas south at least to Tampico, Tamaulipas, México.

Genus LYNX Kerr (lynxes)

1792. *Lynx* Kerr, The animal kingdom, . . ., vol. 1, systematic catalogue inserted between pages 32 and 33, description on p. 155. (Type, *Lynx vulgaris* Kerr=*Felis lynx* Linnaeus.)

1867. *Cervaria* Gray, Proc. Zool. Soc. London, pt. 2, p. 276, October 1867. (Not of Walker, 1866.) (Type, *Felis pardina* Temminck=*Lynx pardellus* Miller.)

1903. *Eucervaria* Palmer, Science, new ser., vol. 17, p. 873, May 29, 1903. (Substitute for *Cervaria* Gray.)

canadensis—group (Canada lynxes)

Lynx canadensis canadensis Kerr*

1792. *Lynx canadensis* Kerr, The animal kingdom, . . ., vol. 1, systematic catalogue inserted between pp. 32 and 33, description on p. 157.

1884. *Lynx borealis canadensis* True, Proc. U. S. Nat Mus., vol. 7, (App., Circ. 29), p. 611. Nov. 29, 1884.

1887. *L[ynx] canadensis* True, Proc. U. S. Nat. Mus., vol. 10, p. 9, Apr. 25, 1887.

Type Locality.—Eastern Canada (=Province of Quebec). *Range.*—Originally found in most forested parts of Canada from Nova Scotia to British Columbia and Yukon, and frequently wandering to Arctic coast of Alaska, Yukon, and Mackenzie District (Franklin Bay) of Northwest Territories (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 76, Jan. 24, 1947); south in Cascade Mountains to Fort Klamath and in northeastern Oregon to Steens Mountains (V. Bailey, North Amer. Fauna No. 55 (June), p. 271, Aug. 29, 1936), Little Owyhee River in northern Nevada (Schantz, Journ. Mamm., vol. 28, No. 3, p. 292, Sept. 3, 1947), San Juan and La Plata Mountains in southwestern Colorado (Cary, North Amer. Fauna No. 33, p. 165, Aug. 17, 1911), western North Dakota and Fort Sisseton in northeastern South Dakota (V. Bailey, North Amer. Fauna No. 49, p. 149 December 1926), Minnesota, southern Wisconsin (Schorger, Journ. Mamm., vol. 28, No. 2, p. 186, May 20, 1947), Michigan, and southern border of Pennsylvania in Allegheny Mountains. Recorded north to Poblatook Creek, a tributary of John River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950), and south to Uinta Mountains and central mountains of Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 438, Aug. 10, 1952).

Lynx canadensis mollipilosus Stone*

1900. *Lynx canadensis mollipilosus* Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 48, Mar. 24, 1900. (Regarded by Anderson, Nat. Mus. Canada

Bull. 102 (1946), p. 75, Jan. 24, 1947, as identical with *Lynx canadensis canadensis.*)

Type Locality.—Wainwright Inlet, Alaska.

Lynx canadensis subsolanus Bangs*

1897. *Lynx subsolanus* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 49, Mar. 16, 1897.

1901. [*Lynx canadensis*] *subsolanus* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 296, Mar. 6, 1901.

1905. *Felis canadensis subsolana* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 370, Dec. 6, 1905.

Type Locality.—Codroy, Newfoundland. *Range.*—Apparently restricted to island of Newfoundland.

rufus—group [11] (bay lynxes and bobcats)

Lynx rufus rufus (Schreber)*

1777. *Felis rufa* Schreber, Die Säugthiere . . ., Theil 3, Heft 95, pl. 109b. (For use of the name *rufus* Schreber 1777 in place of *ruffus* Güldenstaedt 1776 (not a scientific name) see J. A. Allen, Journ. Mamm., vol. 1, No. 2, p. 91, Mar. 2, 1920.)

1817. *Lynx rufus* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 46, November 1817.

1884. *Lynx rufus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884. (Part).

Type Locality.—New York. *Range.*—Formerly southern Ontario and Quebec, but now rare (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 76, Jan. 24, 1947); Maine south to Georgia, the Great Smoky Mountains (Komarek and Komarek, Bull. Chicago Acad. Sci., vol. 5, p. 151, Aug. 15, 1938), and south-central Tennessee; west through Michigan, Wisconsin, and Minnesota to eastern North Dakota (V. Bailey, North Amer. Fauna No. 49, p. 149, December 1926); south to Arkansas (Dellinger and Black, Journ. Mamm., vol. 21, No. 2, p. 189, May 16, 1940) and eastern Kansas (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 71, 1944).

Lynx rufus gigas Bangs*

1897. *Lynx gigas* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 50, Mar. 16, 1897.

1952. *Lynx rufus gigas* Peterson and Downing, Contr. Roy. Ontario Mus. Zool., No. 33, p. 11, Apr. 8, 1952.

Type Locality.—Fifteen miles back of Bear River, Nova Scotia, Canada. *Range.*—From Nova Scotia and New Brunswick westward through southern Quebec to southeastern Ontario.

Lynx rufus superiorensis Peterson and Downing*

1952. *Lynx rufus superiorensis* Peterson and Downing, Contr. Roy. Ontario Mus. Zool., No. 33, p. 1, Apr. 8, 1952.

Type Locality.—McIntyre Township, near Port Arthur, Ontario, Canada. *Range.*—In Ontario north and east at least to Kenogami River and from southwestern Algoma and western Manitoulin Island Districts westward to southeastern Manitoba; Upper Peninsula of Michigan westward across Wisconsin and Minnesota; western and southern limits as yet unknown.

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[11] Races occurring in California (*californicus* and *pallescens*) revised by Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 13, pp. 346–353, Jan. 24, 1924.

Lynx rufus floridanus Rafinesque*

1817. *Lynx floridanus* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 46, November 1817.

1858. *Lynx rufus* var. *floridanus* Baird, Mammals, *in* Rep. Expl. Surv. Railr. to Pacific, vol. 8, pt. 1 (Washington, 1857), p. 91, July 14, 1858.

1897. *Lynx ruffus floridanus* Bangs, Proc. Biol. Soc. Washington, vol. 11, p. 49, Mar. 16, 1897.

1911. *Lynx floridanus* Gifford, Florida Rev., vol. 6, No. 6, p. 461, December 1911. (Shore of Biscayne Bay, 6 miles south of Miami, Dade County, Fla.)

Type Locality.—Florida. *Range.*—Florida north at least to Randolph County, southwestern Georgia (Harper, Journ. Mamm., vol. 10, No. 1, p. 84, Feb. 11, 1929) and southeastern Virginia (Peterson and Downing, Contr. Roy. Ontario Mus. Zool., No. 33, p. 3, Apr. 8, 1952), west across Alabama and Mississippi to alluvial swamps of eastern, southern and southeastern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 235, Nov. 22, 1943), and thence northward to western Kentucky and southeastern Missouri (Peterson and Downing, loc. cit.).

Lynx rufus uinta Merriam†*

1902. *Lynx uinta* Merriam, Proc. Biol. Soc. Washington, vol. 15, p. 71, Mar. 22, 1902. (Regarded by Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 13, p. 350, Jan. 24, 1924, as identical with *Lynx rufus pallescens.*)

1932. *Lynx rufus uinta* V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 294, Mar. 1, 1932.

Type Locality.—Bridger Pass, Carbon County, Wyo. *Range.*—From southern Alberta, Glacier National Park in Montana (V. Bailey, The mammals, *in* Wild animals of Glacier National Park, U. S. Nat. Park Service, p. 82, 1918), and western North Dakota along Missouri River and in Badlands (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 148, Jan. 8, 1927), south in Rocky Mountains to higher mountains of northern New Mexico and along Manzano and Sacramento chain of ranges between Pecos and Río Grande Valleys to south-central New Mexico (V. Bailey, 1932, loc. cit.).

Lynx rufus pallescens Merriam†*

1899. *Lynx fasciatus pallescens* Merriam, North Amer. Fauna No. 16, p. 104, Oct. 28, 1899.

1901. [*Lynx rufa*] *pallescens* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 297, Mar. 6, 1901.

1905. *Felis rufa pallescens* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 371, Dec. 6, 1905.

1924. *Lynx ruffus pallescens* Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 13, p. 350, Jan. 24, 1924.

1933. *Lynx rufus pallescens* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 116, Sept. 26, 1933.

Type Locality.—South side of Mount Adams, near Trout Lake, Skamania County, Wash. *Range.*—From southern British Columbia south on both slopes of the Cascades through Washington and Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 268, Aug. 29, 1936) to Siskiyou (Mount Shasta) and Lassen (Plumas Junction) Counties in northern California (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 605, Aug. 10, 1937), east through central and northern Nevada (Hall, Mammals of Nevada, p. 277, July 1, 1946) into Idaho (Davis, The Recent mammals of Idaho, p. 150, Apr. 5, 1939) and Utah, except southern and southeastern parts (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 441, Aug. 10, 1952).

Lynx rufus fasciatus Rafinesque*

1817. *Lynx fasciatus* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 46, November 1817.

1897. *Lynx fasciatus* Merriam, Mazama, Portland, vol. 1, p. 224, October 1897.

1901. [*Lynx rufa*] *fasciata* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 297, Mar. 6, 1901.

1905. *Felis rufa fasciata* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 371, Dec. 6, 1905.

1924. *Lynx ruffus fasciatus* Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 13, p. 348, Jan. 24, 1924.

1933. *Lynx rufus fasciatus* Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 115, Sept. 26, 1933.

Type Locality.—Northwest coast; based on Lewis and Clark's description of specimens obtained near the mouth of the Columbia, on Netul River (now Lewis and Clark River) near Astoria, Oreg. (V. Bailey, North Amer. Fauna No. 55 (June), p. 269, Aug. 29, 1936). *Range.*—Humid and heavily forested area west of Cascade Mountains from southwestern British Columbia south through Washington, Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 269, Aug. 29, 1936), and the humid redwood coast belt of northwestern California to Mendocino County (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 599, Aug. 10, 1937).

Lynx rufus californicus Mearns†*

1897. *Lynx rufus californicus* Mearns, Preliminary diagnoses of new mammals of the genera *Lynx*, *Urocyon*, *Spilogale*, and *Mephitis*, from the Mexican boundary line, p. 2, Jan. 12, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 458, Dec. 24, 1897.)

1899. *Lynx* (*Cervaria*) *fasciatus oculeus* Bangs, Proc. New England Zool. Club, vol. 1, p. 23, Mar. 31, 1899. (Nicasio, Marin County, Calif. Regarded as indistinguishable from *californicus* by Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 13, p. 347, Jan. 24, 1924.)

Type Locality.—San Diego, San Diego County, Calif. *Range.*—South-central Oregon, south through main part of California west of the Great Basin and southeastern desert and southeast of extreme humid coast belt, except on open plains, to and across the Mexican boundary in the San Diegan subfaunal district (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 590, Aug. 10, 1937) into northwestern Baja California; and the Sierra Nevada and eastern foothills in the vicinity of Lake Tahoe in extreme central western Nevada (Hall, Mammals of Nevada, p. 278, July 1, 1946).

Lynx rufus peninsularis Thomas*

1898. *Lynx rufus peninsularis* Thomas, Ann. Mag. Nat. Hist., ser. 7, vol. 1, p. 42, January 1898.

Type Locality.—Santa Anita, Baja California, México. *Range.*—Cape region of Baja California.

Lynx rufus baileyi Merriam†*

1890. *Lynx baileyi* Merriam, North Amer. Fauna No. 3, p. 79, Sept. 11, 1890.

1897. *Lynx rufus eremicus* Mearns†, Preliminary diagnoses of new mammals of the genera *Lynx*, *Urocyon*, *Spilogale*, and *Mephitis*, from the Mexican boundary line, p. 1, Jan. 12, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 457, Dec. 24, 1897. New River, near Laguna Station, Colorado Desert, Imperial County, Calif. Regarded by Grinnell and Dixon, Univ. California Publ. Zool., vol. 21, No. 13, p. 349, Jan. 24, 1924, as a synonym of *baileyi*.)

1901. [*Lynx rufa*] *baileyi* Elliot, Field Columb. Mus. Publ. 45, Zool. Ser., vol. 2, p. 297, Mar. 6, 1901.

1905. *Felis rufa baileyi* Elliot, Field Columb. Mus. Publ. 105, Zool. Ser., vol. 6, p. 372, Dec. 6, 1905.

1932. *Lynx rufus baileyi* V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 291, Mar. 1, 1932.

Type Locality.—Moccasin Spring, north of Colorado River, Coconino County, Ariz. *Range.*—Western Baja California; southeastern arid region of California, including both Colorado and Mohave Deserts, from east slopes of Coast Ranges in extreme eastern San Diego County and Antelope Valley in northern Los Angeles County north along east flank of Sierra Nevada in Inyo and Mono Counties and desert mountains east of Owens Valley (Grinnell, Dixon, and Linsdale, The fur-bearing mammals of California, vol. 2, p. 603, Aug. 10, 1937) into southern and low western area of Nevada as far as Carson Sink, Churchill County (Hall, Mammals of Nevada, p. 282, July 1, 1946), and across Arizona and New Mexico to Kansas west of Flint Hills (Hibbard, Trans. Kansas Acad. Sci., vol. 47, p. 71, 1944), Oklahoma west of Osage savanna biotic district (Blair, Amer. Midl. Nat., vol. 22, p. 109, July 1939) and western Texas; south at least to Mojarachic in west-central Chihuahua (Knobloch, Journ. Mamm., vol. 23, No. 3, p. 297, Aug. 14, 1942) and Sonora north of Río Yaqui (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 35, Feb. 15, 1939); and north to southern and southeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 443, Aug. 10, 1952).

Lynx rufus texensis J. A. Allen*

1884. *Lynx maculatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 611, Nov. 29, 1884.

1895. *Lynx texensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 188, June 20, 1895. (Based on *Lynx rufus* var. *maculatus* Audubon and Bachman, The viviparous quadrupeds of North America, vol. 2, p. 293, 1851.)

1897. *Lynx rufus texensis* Mearns, Preliminary diagnoses of new mammals of the genera *Lynx*, *Urocyon*, *Spilogale*, and *Mephitis*, from the Mexican boundary line, p. 2, Jan. 12, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 458, Dec. 24, 1897.)

Type Locality.—Vicinity of Castroville, on headwaters of Medina River, Medina County, Tex. *Range.*—From Natchitoches Parish, northwestern Louisiana (Lowery, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 13, p. 235, Nov. 22, 1943), west to big bend of Rio Grande in Kinney County, and north at least to Montague and Cooke Counties, Tex. (V. Bailey, North Amer. Fauna No. 25, p. 169, October 1905); south presumably in Tamaulipas biotic province of México.

Lynx rufus escuinapae J. A. Allen*

1903. *Lynx ruffus escuinapae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 614, Nov. 14, 1903.

Type Locality.—Escuinapa, Sinaloa, México. *Range.*—Southern Sinaloa north at least to Río Mayo in southern Sonora, México (Burt, Univ. Michigan Mus. Zool. Misc. Publ. 39, p. 34, Feb. 15, 1939).

Order PINNIPEDIA[12]

Family OTARIIDAE (eared seals)

Subfamily ARCTOCEPHALINAE

Genus CALLORHINUS[13] Gray (northern fur seals)

1859. *Callorhinus* Gray, Proc. Zool. Soc. London, 1859, pt. 3 (October 1859–February 1860), p. 359. (Type, *Phoca ursina* Linnaeus.)

1892. *Callotaria* Palmer, Proc. Biol. Soc. Washington, vol. 7, p. 156, July 27, 1892. (Substitute for *Callorhinus,* assumed to be a homonym of *Callirhinus* Blanchard, 1850. This is not in conformity with the provisions of the International Code, Article 36, with accompanying recommendation, and Opinion 25 of the International Commission of Zoological Nomenclature, Smithsonian Inst. Spec. Publ. 1938, pp. 59–61, July 1910.)

Callorhinus ursinus cynocephalus (Walbaum)*

1792. *Siren cynocephala* Walbaum, *in* Artedi, Petr. Artedi . . . ichthyologica, pt. 3, Genera piscium, p. 560. (Based on the sea ape of Steller; see Stejneger, Georg Wilhelm Steller . . . , p. 285, August 1936.)

1884. *Callorhinus ursinus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1898. *Callorhinus alascanus* Jordan and Clark, *in* Jordan, The fur seals and fur-seal islands of the North Pacific Ocean, pt. 1, p. 45. (Pribilof Islands, Alaska. See Mayer, Journ. Mamm., vol. 30, No. 3, p. 316, Aug. 17, 1949.)

1936. *Callotaria ursina cynocephala* Stejneger, Georg Wilhelm Steller . . . , p. 285, August 1936.

1940. *Callorhinus ursina cynocephala* Hall, California Fish and Game, vol. 26, No. 1, p. 76, January 1940.

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[12] For classification of the pinnipeds, see Boetticher, Zeitschr. Säug., Berlin, vol. 9, No. 3, p. 359, Dec. 30, 1934; and Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, pp. 121–123, 232–233, Oct. 5, 1945.

[13] For discussion of the names proposed for this genus see Palmer, Proc. Biol. Soc. Washington, vol. 7, p. 156, July 27, 1892, and vol. 14, pp. 133–134, Aug. 9, 1901; J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, pp. 115–118, Mar. 15, 1902; Jordan and Clark, *in* Jordan, The fur seals and fur-seal islands of the North Pacific Ocean, pt. 3, p. 2, November 1899.

Type Locality.—North Pacific Ocean south of Alaska Peninsula at approximately lat. 53° N., long. 155° W. (see Stejneger, op. cit., pl. 12 facing p. 278). *Range.*—In annual migrations from St. Matthew (Hanna, Journ. Mamm., vol. 1, No. 3 (May), p. 121, June 19, 1920) and Pribilof Islands, Bering Sea, southeastward along the coast of Alaska, British Columbia, and the United States to latitude of Point Mugu, Ventura County, Calif. (Lyon, Journ. Mamm., vol. 16, No. 2, p. 151, May 15, 1935); casually to Point Barrow, Alaska (Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 43, Mar. 24, 1900).

Genus ARCTOCEPHALUS É. Geoffroy-Saint-Hilaire and F. Cuvier (southern fur seals)

1826. *Arctocephalus* É. Geoffroy-Saint-Hilaire and F. Cuvier, Dictionnaire des sciences naturelles, vol. 39, p. 554. (Type, *Arctocephalus ursinus* É. Geoffroy-Saint-Hilaire and F. Cuvier=*Phoca antarctica* Thunberg.)

Arctocephalus townsendi Merriam†*

1897. *Arctocephalus townsendi* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 178, July 1, 1897.

Type Locality.—Guadalupe Island, Baja California, México. *Range.*—North Pacific Ocean from Guadalupe and San Benita Islands, approximately 135 miles southwest of Point San Antonio, northern Baja California, north formerly at least to Point Mugu, Ventura County, Calif. (Lyon, Journ. Mamm., vol. 16, No. 2, p. 151, May 15, 1935).

Subfamily OTARIINAE

Genus EUMETOPIAS Gill

1866. *Eumetopias* Gill, Comm. Essex Inst., vol. 5, No. 1, p. 7, Apr. 7, 1866. (Type, *Arctocephalus monteriensis Gray.*=*Phoca jubata* Schreber.)

Eumetopias jubata (Schreber) * (northern sea lion)

1776. *Phoca jubata* Schreber, Die Säugthiere . . . , Theil 3, Heft, 17, pl. 83b and p. 300 (vernacular name only, and description).

1884. *Eumetopias stelleri* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1902. *Eumetopias jubata* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 113, Mar. 15, 1902.

Type Locality.—North Pacific Ocean. *Range.*—From Bering Strait, Bering, Commander and Pribilof Islands, south along Pacific coast of North America to San Miguel and Santa Rosa Islands off southern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 117, Sept. 26, 1933).

Genus ZALOPHUS Gill

1866. *Zalophus* Gill, Comm. Essex Inst., vol. 5, No. 1, p. 7, Apr. 7, 1866. (Type, *Otaria gillespii* McBain=*Otaria californiana* Lesson.)

Zalophus californianus (Lesson) * (California sea lion)

1828. *Otaria californiana* Lesson, *in* Dictionnaire classique d'histoire naturelle . . . , vol. 13, p. 420.

1880. *Zalophus californianus* J. A. Allen, History of North American pinnipeds . . . (U. S. Geol. Geogr. Surv. Terr. Misc. Publ. 12), p. 276.

1884. *Zalophus californianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

Type Locality.—Rocks in vicinity of San Francisco Bay, Calif. *Range.*—North Pacific from Tres Marías Islands, 65 miles off coast of Nayarit, México (Nelson, North Amer. Fauna No. 14, p. 17, Apr. 29, 1899), the Coronados Islands and Guadalupe Island off northern Baja California, north to northern California (Bonnot, California Fish and Game Comm. Fish Bull. 14, p. 10, January 1928); casually to British Columbia (Cowan, Canadian Field-Nat., vol. 50, No. 9, pp. 146–147, Dec. 3, 1936).

Family ODOBENIDAE (walruses)

Genus ODOBENUS[14] Brisson

1762. *Odobenus* Brisson, Regnum animale . . . , ed. 2, p. 30. (Type, *Odobenus* Brisson=*Phoca rosmarus* Linnaeus).

1772. *Rosmarus* Brünnich, Zoologiae fundamenta . . . , p. 38. (Type, "Zavheften"=*Phoca rosmarus* Linnaeus.)

Odobenus rosmarus divergens (Illiger) * (Pacific walrus)

1815. *? Trichechus obesus* Illiger, Abhandl. Preuss. Akad. Wiss. Berlin, 1804–1811, p. 64. (Nomen nudum.)

1815. [*Trichechus*] *divergens* Illiger, Abhandl. Preuss. Akad. Wiss. Berlin, 1804–1811, p. 68.

1884. *Odobaenus obesus* True, Proc. U. S. Nat. Mus., vol .7 (App., Circ. 29), p. 608, Nov. 29, 1884.

1914. *Odobenus divergens* Stejneger, Proc. Biol. Soc. Washington, vol. 27, p. 145, July 10, 1914.

1938. *Odobenus rosmarus divergens* Barabash-Nikiforov, Journ. Mamm., vol. 19, No. 4, p. 427, Nov. 14, 1938; Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian Mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 324, Nov. 19, 1951.

Type Locality.—About 35 miles south of Icy Cape, Alaska. *Range.*—Bering Sea north into Arctic Ocean, coasts of northeastern Siberia and northwestern Alaska, commonly north to Point Barrow; a few casual records on north coast of Alaska; one from Herschel Island, Yukon, and one reported in Dolphin and Union Strait (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 81, Jan. 24, 1947).

Odobenus rosmarus rosmarus (Linnaeus) * (Atlantic walrus)

1758. [*Phoca*] *rosmarus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 38.

1859. *O*[*dobaenus*] *rosmarus* Sundevall, Öfv. Vet.-Akad. Forh. Stockholm, 1859, p. 446.

1884. *Odobaenus rosmarus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

1951. *Odobenus rosmarus rosmarus* Ellerman and Morrison-Scott, Checklist of Palaearctic and Indian Mammals 1758 to 1946, Publ. Brit. Mus. (Nat. Hist.), p. 324, Nov. 19, 1951.

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[14] Brisson regarded as non-Linnaean and not consistently binominal by Hopwood, Proc. Zool. Soc. London, vol. 117, pts. 2–3, pp. 534, 535, Oct. 30, 1947. See also Hershkovitz, Proc. Biol. Soc. Washington, vol. 62, p. 12, Mar. 17, 1949.

Type Locality.—Arctic regions. *Range.*—North Atlantic and Arctic Oceans, within historic times as far south as Magdalen Islands in Gulf of St. Lawrence, Cape Breton, Sable Island off southern Nova Scotia, and into Gulf of Maine (G. M. Allen, Journ. Mamm., vol. 11, No. 2, p. 139, May 9, 1930); now seldom if ever appearing south of Hudson Bay and Hudson Strait; north to northwest Greenland and Ellesmere Island; rare or casual west of Barrow Strait, Somerset Island, and Fury and Hecla Strait (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 81, Jan. 24, 1947).

Family PHOCIDAE (hair seals)

Subfamily PHOCINAE

Genus PHOCA[15] Linnaeus

1758. *Phoca* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 37. (Type, *Phoca vitulina* Linnaeus.)

Subgenus PHOCA Linnaeus (harbor seals)

Phoca vitulina concolor De Kay*

1842. *Phoca concolor* De Kay, Zoology of New York, . . . , vol. 1, pt. 1 (Mammalia), p. 53 (*in* [New York State], Natural History of New York).

1884. *Phoca vitulina* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1913. *Phoca vitulina concolor* Brown, Pocket List of Mammals of Eastern Massachusetts, p. 30.

Type Locality.—Long Island Sound, near Sands Point, Nassau County, N. Y. *Range.*—Atlantic coast of North America from Ellesmere Island to North Carolina (Brimley, Journ. Mamm., vol. 12, No. 3, p. 314, Aug. 24, 1931), most abundant from Maine to Labrador, but rare or uncommon at extremes of its range. Occasionally ascends St. Lawrence River to Montreal; a few records of occurrence in Lake Ontario, and one record of specimen killed at mouth of Gatineau River near Ottawa (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 78, Jan. 24, 1947).

Phoca vitulina mellonae Doutt

1942. *Phoca vitulina mellonae* Doutt, Ann. Carnegie Mus., vol. 29, p. 111, May 12, 1942.

Type Locality.—Lower Seal Lake, Quebec, about 90 miles east of Richmond Gulf, Hudson Bay, lat. 56° 30′ N., long. 74° 30′ W. *Range.*—Restricted to Upper and Lower Seal Lakes, Quebec, Canada.

Phoca vitulina richardii (Gray)*

1864. *Halicyon richardii* Gray, Proc. Zool. Soc. London 1864, pt. 1, p. 28, July 1864.

1899. *Phoca largha* True, *in* Jordan, The fur seals and fur-seal islands of the North Pacific Ocean, pt. 3, p. 351, November 1899.

1902. *Phoca richardii* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 491, Dec. 12, 1902.

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[15] Revised by Doutt, Ann. Carnegie Mus., vol. 29, pp. 61–125, May 12, 1942.

1902. *Phoca ochotensis macrodens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 483, Dec. 12, 1902. (Part.)

1902. *Phoca richardii pribilofensis* J. A. Allen†, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 495, Dec. 12, 1902. (St. Paul Island, Pribilof islands, Alaska. Regarded by Schwarz, Journ. Mamm., vol. 23, No. 2, p. 222, May 14, 1942, as identical with the *Phoca largha* of Pallas, Zoographia Rosso-Asiatica, . . . , vol. 1, p. 113, 1811.)

1908. *Phoca vitulina largha* Smirnov, Mem. Acad. Imp. Sci. St. Petersburg, vol. 23, No. 4, p. 63. (Part. Regards *richardii*, *pribilofensis*, *geronimensis*, *stejnegeri*, and *macrodens* as synonyms.)

1941. *Phoca petersi* Mohr, Zool. Anzeiger, vol. 133, p. 58, Feb. 1, 1941. (Part.)

1942. *Phoca vitulina richardii* Doutt, Ann. Carnegie Mus., vol. 29, p. 112, May 12, 1942.

Type Locality.—Vancouver Island, British Columbia, Canada. *Range.*—American side of North Pacific Ocean from St. Lawrence Island, Bering Sea, south to Monterey County, California (Doutt, 1942, p. 121); occasionally in Arctic Ocean as far north as Point Barrow, Alaska, and east to Herschel Island, Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 78, Jan. 24, 1947).

Phoca vitulina geronimensis J. A. Allen†*

1902. *Phoca richardii geronimensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 495, Dec. 12, 1902.

1942. *Phoca vitulina geronimensis* Doutt, Ann. Carnegie Mus., vol. 29, pp. 116, 117, May 12, 1942.

Type Locality.—San Gerónimo Island, Baja California, México. *Range.*—From San Gerónimo and San Martín Islands off northern Baja California north to Ventura County, Calif. (Lyon, Journ. Mamm., vol. 16, No. 2, p. 151, May 15, 1935).

Subgenus HISTRIOPHOCA [16] Gill (ribbon seals)

1873. *Histriophoca* Gill, Amer. Nat., vol. 7, p. 179, March 1873. (Type, *Phoca fasciata* Zimmermann.)

Phoca fasciata Zimmermann*

1783. *Phoca fasciata* Zimmermann, Geographische Geschichte . . . , vol. 3, p. 277.

1884. *Phoca fasciata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

Type Locality.—Kurile Islands, Japan. *Range.*—Bering Sea from Aleutian Islands north to Point Barrow, Alaska, in Arctic Ocean.

Subgenus PUSA [17] Scopoli (ringed seals)

1777. *Pusa* Scopoli, Introductio ad historiam naturalem . . . , p. 490. (Type, *Phoca foetida* Fabricius=*Phoca hispida* Schreber.)

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[16] Not mentioned by Boetticher, Zeitschr. Säug., Berlin, vol. 9, pp. 359–368, Dec. 30, 1934. Included in synonymy of *Phoca* by Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, p. 122, Oct. 5, 1945.

[17] Regarded as a genus by Boetticher, Zeitschr. Säug., Berlin, p. 359, Dec. 30, 1934. Included in synonymy of *Phoca* by Simpson, Bull. Amer. Mus, Nat. Hist., vol. 85, p. 122, Oct. 5, 1945.

Phoca hispida hispida Schreber*

1775. *Phoca hispida* Schreber, Die Säugthiere . . . , Theil 3, Heft 13, pl. 86.

1884. *Phoca foetida* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1898. *Phoca hispida* Thomas, The Zoologist, ser. 4, vol. 2, pp. 100, 102, March 1898.

1934. *Pusa hispida* Boettiger, Zeitschr. Säug., Berlin, vol. 9, No. 3, p. 359, Dec. 30, 1934.

Type Locality.—Coasts of Greenland and Labrador. *Range.*—Mostly in Arctic seas; recorded as far north as lat. 82°40′ N.; in all parts of the sea in eastern American Arctic from Greenland south to Labrador and Hudson Bay; probably intergrading with *beaufortiana* in central part of Canadian Arctic Archipelago (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 79, Jan. 24, 1947).

Phoca hispida beaufortiana Anderson*

1943. *Phoca hispida beaufortiana* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 25, Sept. 7, 1943.

Type Locality.—Cockburn Point, Dolphin and Union Strait, Mackenzie District, Northwest Territories, Canada; lat. 68°55′29″ N., long. about 115°10′ W. *Range.*—Arctic coast of Alaska (Bailey and Hendee, Journ. Mamm., vol. 7, No. 1, p. 17, Feb. 15, 1926) and Beaufort Sea, east to Coronation Gulf (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 79, Jan. 24, 1947).

Phoca hispida soperi Anderson*

1943. *Phoca hispida soperi* Anderson, Ann. Rep. Provancher Soc. Nat. Hist., Quebec, 1942, p. 27, Sept. 7, 1943.

Type Locality.—Near mouth of Takuirbing River, at eastern end of Nettilling Lake about 85 feet above sea level, Baffin Island, District of Franklin, Northwest Territories, Canada; lat. 66°16′ N., long. 74°33′36″ W. *Range.*—Restricted to Nettilling Lake in central Baffin Island and east side of Foxe Basin near mouth of Koukdjuak River on west coast of Baffin Island, Northwest Territories, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 79, Jan. 24, 1947).

Subgenus PAGOPHILUS[18] Gray (harp seals)

1844. *Pagophilus* Gray, *in* The zoology of the voyage of H.M.S. *Erebus* and *Terror*, . . . , vol. 1, pt. 1, p. 3. (Type, *Phoca groenlandica* Erxleben.)

1904. *Pagophoca* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 1, p. 287. (Substitute for *Pagophilus*, assumed to be a homonym of *Pagophila* Kaup, 1829. This is not in conformity with the provisions of the International Code, Article 36, with accompanying recommendation, and Opinion 25 of the International Commission of Zoological Nomenclature, Smithsonian Inst. Spec. Publ. 1938, pp. 59–61, July 1910.)

Phoca groenlandica Erxleben*

1777. [*Phoca*] *groenlandica* Erxleben, Systema regni animalis . . . , vol. 1, p. 588.

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[18] Regarded as a genus by Boetticher, Zeitschr. Säug., Berlin, vol. 9, p. 359, Dec. 30, 1934. Included in synonymy of *Phoca* by Simpson, Bull. Amer. Mus. Nat. Hist., vol. 85, p. 122, Oct. 5, 1945.

1884. *Phoca groenlandica* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

1934. *Pagophoca groenlandica* Boetticher, Zeitschr. Säug., vol. 9, No. 3, p. 359, Dec. 30, 1934.

Type Locality.—Greenland and Newfoundland. *Range.*—North Atlantic and adjoining waters of Arctic Ocean on coasts of northern Europe and eastern North America; on American side from Greenland and southern Ellesmere Island south regularly to Hudson Bay, Labrador, Newfoundland, and Gulf of St. Lawrence; accidental in western Arctic District at Aklavik, Mackenzie River delta and off north end of Melbourne Island, Queen Maud Gulf. about long. 104° W. (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 79, Jan. 24, 1947). Fortuitously to New England and New Jersey (Rhoads, The mammals of Pennsylvania and New Jersey, p. 126, 1903).

Genus ERIGNATHUS Gill (bearded seals)

1866. *Erignathus* Gill, Comm. Essex Inst., vol. 5, No. 1, pp. 5, 9, Apr. 7, 1866. (Type, *Phoca barbata* Erxleben.)

Erignathus barbatus barbatus (Erxleben) *

1777. [*Phoca*] *barbata* Erxleben, Systema regni animalis . . . , vol. 1, p. 590.

1866. *Erignathus barbatus* Gill, Comm. Essex Inst., vol. 5, No. 1, p. 12, Apr. 7, 1866.

1884. *Erignathus barbatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

Type Locality.—Coasts of Scotland, southern Greenland and Iceland. *Range.*—Arctic shores of northern Europe and North America from Greenland south to Hudson Bay, Labrador, and rarely to Newfoundland.

Erignathus barbatus nauticus (Pallas) *

1811. *Phoca nautica* Pallas, Zoographia Rosso-Asiatica, . . . , vol. 1, p. 108. (North American specimens regarded by Anderson, Canadian Field-Nat., vol. 44, No. 4, p. 99, Apr. 1, 1930, as identical with *barbatus.*)

1904. *Erignathus barbatus nauticus* Osgood, North Amer. Fauna No. 24, p. 47, Nov. 23, 1904.

Type Locality.—Okhotsk Sea. *Range.*—East coast of Bering Sea from Bristol Bay (Osgood, loc. cit.) north to Point Barrow, Alaska (Stone, Proc. Acad. Nat. Sci. Philadelphia, vol. 52, p. 43, Mar. 24, 1900), and Arctic coast.

Genus HALICHOERUS Nilsson (gray seals)

1820. *Halichoerus* Nilsson, Skandinavisk Fauna . . . , vol. 1, p. 376. (Type, *Halichoerus griseus* Nilsson = *Phoca grypus* Fabricius.)

Halichoerus grypus (Fabricius) *

1791. *Phoca grypus* Fabricius, Skrivter af Naturh.-Selskabet, Kjϕbenhavn, vol. 1, pt. 2, p. 167, pl. 13, fig. 4.

1841. *Halichoerus grypus* Nilsson, Arch. Naturg., Jahrg. 7, vol. 1, p. 318.

1884. *Halichoerus grypus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

Type Locality.—Greenland. *Range.*—North Atlantic, more common off islands of northeastern Europe; found rarely and locally on Atlantic coast from Greenland to Labrador, Newfoundland, Nova Scotia, and Gulf of St. Lawrence where it is most common off Anticosti and Mingan Islands on North Shore; reaches southern limit on small islands near Rimouski, Riviere-du-Loup county, on south side of estuary of St. Lawrence River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 80, Jan. 24, 1947). Accidental off New Jersey (Goodwin, Journ. Mamm., vol. 14, No. 1, p. 74, Feb. 14, 1933).

Subfamily MONACHINAE

Genus MONACHUS Fleming

1822. *Monachus* Fleming, The philosophy of zoology; . . . , vol. 2, p. 187. (Type, *Phoca monachus* Hermann.)

Monachus tropicalis (Gray) * (West Indian seal)

1850. *Phoca tropicalis* Gray, Catalogue of the . . . Mammalia in the . . . British Museum, pt. 2, p. 28.

1851. [—] *wilkianus* Gosse, A naturalist's sojourn in Jamaica, p. 308. (Not binomial.)

1866. *Monachus tropicalis* Gray, Catalogue of the seals and whales in the British Museum, p. 20.

1884. *Monachus tropicalis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 607, Nov. 29, 1884.

Type Locality.—Jamaica. *Range.*—Gulf of Mexico and Caribbean Sea as far south as coast of Honduras, north to coast of Texas (Gunter, Journ. Mamm., vol. 28, No. 3, p. 289, Sept. 3, 1947) and Key West, Fla. (Townsend, Journ. Mamm., vol. 4, No. 1, p. 55, Feb. 9, 1923), east to Jamaica, Cuba, and Hispaniola, and northward through the Bahamas.

Subfamily CYSTOPHORINAE

Genus CYSTOPHORA Nilsson (hooded seals)

1820. *Cystophora* Nilsson, Skandinavisk Fauna . . . , vol. 1, p. 382. (Type, *Cystophora borealis* Nilsson=*Phoca cristata* Erxleben.)

1911. *Cystophoca* Brass, Aus dem Reiche der Pelze, p. 668, April 1911. (Renaming, perhaps accidental, of *Cystophora.*)

Cystophora cristata (Erxleben) *

1777. [*Phoca*] *cristata* Erxleben, Systema regni animalis . . . , vol. 1, p. 590.

1841. *Cystophora cristata* Nilsson, Arch. Naturg., Jahrg. 7, vol. 1, p. 326.

1884. *Cystophora cristata* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

Type Locality.—Southern Greenland and Newfoundland. *Range.*—North Atlantic coast from Greenland to Labrador, Newfoundland, Nova Scotia, and Gulf of St. Lawrence; the most northerly record Cape Sabine, Ellesmere Island;

recorded also at Herschel Island, Yukon, and near Tuktuyaktok just east of Mackenzie River delta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 80, Jan. 24, 1947). Accidental off Florida (Miller, Proc. Biol. Soc. Washington, vol. 30, p. 121, July 27, 1917).

Genus MIROUNGA Gray (elephant seals)

1826. *Macrorhinus* É. Geoffroy-Saint-Hilaire and F. Cuvier, *in* Dictionnaire des sciences naturelles, . . . , vol. 39, p. 552. (Type, *Phoca proboscidea* Péron=*Phoca leonina* Linnaeus. Not of Latreille, 1825.)

1827. *Mirounga* Gray, *in* Griffith, The animal kingdom . . . by the Baron Cuvier . . . , vol. 5, p. 179. (Type, *Phoca proboscidea* Péron.)

Mirounga angustirostris (Gill) †*

1866. *Macrorhinus angustirostris* Gill, Comm. Essex Inst., vol. 5, No. 1, p. 13, Apr. 7, 1866; Proc. Chicago Acad. Sci., vol. 1, p. 33, April 1866.

1884. *Macrorhinus angustirostris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 608, Nov. 29, 1884.

1904. [*Mirounga*] *angustirostris* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 2, p. 545, Aug. 2, 1904.

Type Locality.—San Bartolomé Bay, Baja California, México. *Range.*—From Cape San Lázaro, southern Baja California, and Asunción, San Roque, Natividad, Cedros, San Benito, and Guadalupe Islands (Huey, Journ. Mamm., vol. 8, No. 2, p. 160, May 11, 1927) north to Point Reyes, Marin County, Calif. (Scammon, Proc. Acad. Nat. Sci. Philadelphia, vol. 21, p. 61, April 1869). North sporadically to Queen Charlotte Strait (Cowan and Carl, Canadian Field-Nat., vol. 59, p. 170, September–October 1945) and Kasaan, Prince of Wales Island, Alaska (Willett, Journ. Mamm., vol. 24, No. 4, p. 500, Nov. 20, 1943).

Order SIRENIA (sea cows)

Family TRICHECHIDAE

Genus TRICHECHUS[19] Linnaeus

1758. *Trichechus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 34. (Type, *Trichechus manatus* Linnaeus.)

Trichechus manatus manatus Linnaeus* (manatee)

1758. [*Trichechus*] *manatus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 34.

1884. *Trichechus manatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884.

Type Locality.—West Indies (see Thomas, Proc. Zool. Soc. London for 1911, pt. 1, p. 132, Mar. 22, 1911). *Range.*—Bay of Campeche to Río Atrato, Colombia (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, pp. 68–71, Apr. 26, 1920), coast and lower reaches of rivers of northeastern South America, and West Indies (Hatt, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 538, Sept. 10, 1934).

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[19] Reviewed by Hatt, Bull. Amer. Mus. Nat. Hist., vol. 66, pp. 533–566, Sept. 10, 1934.

Trichechus manatus latirostris Harlan* (Florida manatee)

1823. *Manatus latirostris* Harlan, Journ. Acad. Nat. Sci. Philadelphia, vol. 3, pt. 1, p. 394.

1884. *Trichechus latirostris* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 588, Nov. 29, 1884.

1934. *Trichechus manatus latirostris* Hatt, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 538, Sept. 10, 1934.

Type Locality.—Near the capes of East Florida. *Range.*—Coast and coastal rivers of United States from Beaufort, N. C., to Florida Keys and coasts of Gulf of México (Hatt, Bull. Amer. Mus. Nat. Hist., vol. 66, p. 538, Sept. 10, 1934); westward along coast of Texas to mouth of Rio Grande (Gunter, Journ. Mamm., vol. 22, No. 1, p. 60, Feb. 14, 1941. See also Moore, Quart. Journ. Florida Acad. Sci., vol. 14, No. 1, pp. 16, 18, March 1951).

Order PERISSODACTYLA (odd-toed ungulates)

Suborder CERATOMORPHA

Superfamily TAPIROIDEA

Family TAPIRIDAE (tapirs)

Genus TAPIRELLA[20] Palmer

1865. *Elasmognathus* Gill, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 183. (Type, *Elasmognathus bairdii* Gill. Not of Fieber, 1844.)

1903. *Tapirella* Palmer, Science, new ser., vol. 17, p. 873, May 29, 1903. (Substitute for *Elasmognathus* Gill.)

Tapirella bairdii (Gill) †*

1865. *Elasmognathus bairdii* Gill, Proc. Acad. Nat. Sci. Philadelphia, vol. 17, p. 183.

1870. *Elasmognathus dowii* Gill†, Amer. Journ. Sci., vol. 50, p. 142. (Guatemala. Regarded as identical with *bairdii* by Goodwin, Journ. Mamm., vol. 27, No. 1, p. 91, Mar. 16, 1946.)

1884. *Elasmognathus bairdii* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 593, Nov. 29, 1884.

1904. [*Tapirella*] *bairdi* Elliot, Field Columb. Mus. Publ. 95, Zool. Ser., vol. 4, pt. 1, p. 87, Aug. 2, 1904.

Type Locality.—Isthmus of Panamá. *Range.*—From Achotal, southern Veracruz, México (Elliot, Field Columb. Mus. Publ. 115, Zool. Ser., vol. 8, p. 102, Mar. 4, 1907), southward through British Honduras (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 29, July 15, 1935), Guatemala, Nicaragua, and Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 450, Dec. 31, 1946) to Cana, Darién, eastern Panamá (Goldman, Smithsonian Misc. Coll., vol. 69 No. 5, p. 83, Apr. 26, 1920).

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[20] For status see Simpson, Bull Amer. Mus. Nat. Hist., vol. 86, pp. 40–41, Nov. 12, 1945.

Order ARTIODACTYLA (even-toed ungulates)

Suborder SUIFORMES

Superfamily SUOIDEA

Family TAYASSUIDAE (peccaries)

Genus PECARI Reichenbach (collared peccaries)

1775. *Tagassu* Frisch, Das Natur-System der vierfüssigen Thiere . . . , p. 3. (Type, "Das amerikanische einzige Schwein-Geschlechte," or *Sus tajacu* Linnaeus, 1758. See Palmer, North Amer. Fauna No. 23, p. 955, Jan. 23, 1904. Names applied to genera rejected, since Frisch is not consistently binomial. See, Sherborn, Index animalium: . . . , sect. 1, p. xxv, 1902; Thomas and Miller, Ann. Mag. Nat. Hist., ser. 7, vol. 16, pp. 461–464, October 1905; and Hershkovitz, Journ. Mamm., vol. 29, No. 3, p. 272, Aug. 31, 1948.)

1835. *Pecari* Reichenbach, Bildergalerie der Thierwelt, . . . , Heft 6, p. 1. (Type by monotypy, *Sus torquatus* Cuvier. See Miller, Proc. Biol. Soc. Washington, vol. 27, p. 229, Dec. 29, 1914.)

Pecari tajacu sonoriensis (Mearns) †*

1897. *Dicotyles angulatus sonoriensis* Mearns, Preliminary diagnoses of new mammals of the genera *Mephitis*, *Dorcelaphus*, and *Dicotyles*, from the Mexican border of the United States, p. 3, Feb. 11, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 469, Dec. 24, 1897.)

1912. *Pecari angulatus sonoriensis* Miller, U. S. Nat. Mus. Bull. 79, p. 383, Dec. 31, 1912.

1951. *Pecari tajacu sonoriensis* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.

Type Locality.—San Bernardino River, Sonora, México, near monument No. 77, Mexican boundary. *Range.*—Southwestern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 11, Mar. 1, 1932) and Arizona south of Gila River southward through western México to central Sinaloa; westward in Arizona into Organ Pipe Cactus National Monument, Pima County (Huey, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 32, p. 362, Feb. 17, 1942).

Pecari tajacu crassus (Merriam) †*

1901. *Tayassu angulatus crassus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 124, July 19, 1901.

1912. *Pecari angulatus crassus* Miller, U. S. Nat. Mus. Bull. 79, p. 383, Dec. 31, 1912.

1951. *Pecari tajacu crassus* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.

Type Locality.—Metlatoyuca, Puebla, México. *Range.*—From southeastern San Luis Potosí southward through northeastern Querétaro, eastern Hidalgo, and northeastern Puebla to southern Veracruz, México.

Pecari tajacu angulatus (Cope) *

1884. *Dicotyles tajacu* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 591, Nov. 29, 1884. (Part.)

1889. *Dicotyles angulatus* Cope, Amer. Nat., vol. 23, p. 147, February 1889.
1898. *T[ayassu] angulatus* Bangs, Proc. Biol. Soc. Washington, vol. 12, p. 165, Aug. 10, 1898.
1912. *Pecari angulatus angulatus* Miller, U. S. Nat. Mus. Bull. 79, p. 383, Dec. 31, 1912.
1951. *Pecari tajacu angulatus* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.

Type Locality.—Guadalupe River, Texas. *Range.*—From sand dunes along eastern edge of Pecos River Valley in extreme southeastern New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 10, Mar. 1, 1932) eastward in Texas south of broken edge of plains to Brazos River Valley, and southward through Coahuila, Nuevo León, and Tamaulipas to San Luis Potosí, México.

Pecari tajacu humeralis (Merriam) †*

1901. *Tayassu angulatus humeralis* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 122, July 19, 1901.
1912. *Pecari angulatus humeralis* Miller, U. S. Nat. Mus. Bull. 79, p. 383, Dec. 31, 1912.
1951. *Pecari tajacu humeralis* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.

Type Locality.—Armería, Colima, México. *Range.*—Nayarit to Isthmus of Tehuantepec, México.

Pecari tajacu nelsoni Goldman†*

1926. *Pecari angulatus nelsoni* Goldman, Proc. Biol. Soc. Washington, vol. 39, p. 48, July 30, 1926.
1951. *Pecari tajacu nelsoni* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.

Type Locality.—Huehuetán, Chiapas, México. Altitude, 500 feet. *Range.*—Forests of southern Chiapas, México, and doubtless adjoining parts of Guatemala.

Pecari tajacu yucatanensis (Merriam) †*

1901. *Tayassu angulatus yucatanensis* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 123, July 19, 1901.
1912. *Pecari angulatus yucatanensis* Miller, U. S. Nat. Mus. Bull. 79, p. 383, Dec. 31, 1912.
1951. *Pecari tajacu yucatanensis* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.

Type Locality.—Tunkás, Yucatán, México. *Range.*—Yucatán. Recorded also from Uaxactún, northeastern Guatemala (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 28, July 15, 1935).

Pecari tajacu nanus (Merriam) †*

1901. *Tayassu nanus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 102, July 19, 1901.
1912. *Pecari nanus* Miller, U. S. Nat. Mus. Bull. 79, p. 384, Dec. 31, 1912.
1951. *Pecari tajacu nanus* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951. (Regarded as doubtfully distinct from *yucatanensis.*)

Type Locality.—Cozumel Island, Quintana Roo, México. *Range.*—Cozumel Island.

Pecari tajacu nigrescens Goldman†*

1926. *Pecari angulatus nigrescens* Goldman, Proc. Biol. Soc. Washington, vol. 39, p. 49, July 30, 1926. (Regarded as identical with *nelsoni* by Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 566, July 10, 1951.)

Type Locality.—Chamelecón, Cortés, Honduras. *Range.*—Northwestern Honduras to northern Guatemala and eastern Quintana Roo, México.

Pecari tajacu crusniger (Bangs)

1902. *Tayassu crusnigrum* Bangs, Bull. Mus. Comp. Zool., vol. 39, p. 20, April 1902.

1912. *Pecari crusnigrum* Miller, U. S. Nat. Mus. Bull. 79, p. 383, Dec. 31, 1912.

1920. *Pecari angulatus crusnigrum* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 72, Apr. 26, 1920.

1937. *Pecari angulatus crusniger* Bole, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 7, p. 186, Aug. 31, 1937.

1951. *Pecari tajacu crusnigrum* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951.

Type Locality.—Bóquete, Chiriquí, Panamá. Altitude, 4,000 feet. *Range.*—Highlands of western Panamá and most of Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 446, Dec. 31, 1946).

Pecari tajacu bangsi Goldman†*

1917. *Pecari angulatus bangsi* Goldman, Proc. Biol. Soc. Washington, vol. 30, p. 109, May 23, 1917.

1951. *Pecari tajacu bangsi* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951.

Type Locality.—Boca de Cupe, Darién, eastern Panamá. Altitude, 250 feet. *Range.*—From eastern Darién, Panamá, westward to at least Gatún, Canal Zone (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 73, Apr. 26, 1920).

Genus TAYASSU G. Fischer (white-lipped peccaries)

1814. *Tayassu* G. Fisher, Zoognosia tabulis synopticis illustrata, . . . , vol. 3, p. 284. (Type by tautonomy, *Tayassu pecari* Fischer. *Tayassu* Fischer and *Pecari* Reichenbach regarded as congeneric by Tate, Bull. Amer. Mus. Nat. Hist., vol. 76, p. 223, Oct. 20, 1939. For use of this name in place of *Dicotyles* G. Cuvier, see Palmer, Proc. Biol. Soc. Washington, vol. 11, p. 174, June 9, 1897; and Miller, Proc. Biol. Soc. Washington, vol. 27, p. 229, Dec. 29, 1914.)

1817. *Dicotyles* G. Cuvier, Le régne animal . . . , vol. 1, p. 237. (Type, by subsequent designation, Gray, Proc. Zool. Soc. London, 1868, pt. 1, p. 45, May 1868, *Dicotyles labiatus* G. Cuvier=*Tayassu pecari* Fischer.)

1901. *Olidosus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 120, July 19, 1901. (Type, *Sus albirostris* Illiger=*Tayassu pecari* Fischer.)

Tayassu pecari ringens Merriam†*

1901. *Tayassu albirostris ringens* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 121, July 19, 1901.

1902. *Tayassu pecari ringens* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 166, July 1, 1902.

Type Locality.—Apazote, near Yohaltún, Campeche, México. *Range.*—From 20 kilometers east of Jesús Carranza, Veracruz (Dalquest, Anal. Inst. Biol. Univ. Nac. México, vol. 20, Nos. 1–2, p. 412, 1949), southward through Campeche, México, into northeastern Guatemala (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 28, July 15, 1935), and probably Honduras.

Tayassu pecari spiradens Goldman†*

1884. *Dicotyles labiatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1912. *Tayassu albirostris spiradens* Goldman, Proc. Biol. Soc. Washington, vol. 25, p. 189, Dec. 24, 1912.

1920. *Tayassu pecari spiradens* Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 74, Apr. 24, 1920.

Type Locality.—Talamanca [=Sipurio, Río Sixaola, Limón, near Caribbean coast], Costa Rica. *Range.*—Recorded from vicinity of Turbo, near mouth of Río Atrato, northern Colombia (G. M. Allen and Barbour, Bull. Mus. Comp. Zool., vol. 65, No. 8, p. 261, February 1923), Barro Colorado Island in Canal Zone (Enders, Bull. Mus. Comp. Zool., vol. 78, No. 4, p. 477, October 1935), and Limón (Talamanca) and San José (Carillo) Provinces in southern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 446, Dec. 31, 1946).

Suborder RUMINANTIA

Superfamily CERVOIDEA

Family CERVIDAE (deer)

Subfamily CERVINAE

Genus CERVUS Linnaeus (wapiti)

1758. *Cervus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 66. (Type, *Cervus elaphus* Linnaeus.)

Cervus canadensis canadensis (Erxleben)*

1777. [*Cervus elaphus*] *canadensis* Erxleben, Systema regni animalis . . . , p. 305.

1780. *Cervus canadensis* Borowski, Gemeinnüzzige Naturgeschichte des Thierreichs, vol. 1, pt. 3, p. 72.

1884. *Cervus canadensis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

Type Locality.—Eastern Canada (Province of Quebec). *Range.*—Formerly distributed from southern Quebec, southern Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 174, Jan. 24, 1947), south shores of Great Lakes, Minnesota (Roberts, Minnesota Dept. Conserv. Techn. Bull. 2, pp. 12–14, 1945), North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), pp. 33–36, Jan. 8, 1927), and southern Alberta, southward at least to northern Georgia, Tennessee (Kellogg, Proc. U. S. Nat. Mus., vol. 86, pp. 295–297, Feb. 14, 1939), Arkansas, and Oklahoma. (See also V. Bailey, Journ. Mamm., vol. 18, No. 1, p. 104, Feb. 11, 1937.)

Cervus canadensis manitobensis Millais

1915. *C[ervus] c[anadensis] manitobensis* Millais, *in* The gun at home and abroad, . . . , vol. 4, p. 281.

Type Locality.—Manitoba and eastern Saskatchewan, Canada. *Range.*—Formerly widely distributed over southern parts of prairie provinces from at least Red River, Manitoba, to Cypress Hills, Alberta (Soper, Journ. Mamm., vol. 27, No. 2, p. 150, May 14, 1946). Present range, southwestern Manitoba, mostly in Riding Mountain region, and central Saskatchewan, mostly in park land at northern edge of Great Plains region (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 174, Jan. 24, 1947).

Cervus canadensis nelsoni V. Bailey†*

1935. *Cervus canadensis nelsoni* V. Bailey, Proc. Biol. Soc. Washington, vol. 38, p. 188, Nov. 15, 1935.

Type Locality.—Yellowstone National Park, Wyo. *Range.*—Rocky Mountains, from north-central New Mexico (San Juan Mountains; V. Bailey, North Amer. Fauna No. 53 (December 1931), pp. 39–41, Mar. 1, 1932) to northwestern Alberta and northeastern British Columbia (Prairie River), Canada (Anderson, Nat. Mus. Canada Bull 102 (1946), p. 175, Jan. 24, 1947); southward through Idaho (Rust, Journ. Mamm., vol. 27, No. 4, p. 311, Nov. 25, 1946) into Utah and Nevada (White Pine County; Hall, Mammals of Nevada, p. 618, July 1, 1946); westward to northeastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 78, Aug. 29, 1936) and eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 394, Apr. 9, 1948). Introduced into Virginia (Handley and Patton, Wild mammals of Virginia, p. 192, 1947), Texas (Culberson County; Davis and Robertson, Journ. Mamm., vol. 25, No. 3, p. 272, Sept. 8, 1944), Oregon, and Washington (Couch, Murrelet, vol. 16, No. 1, pp. 3–6, January 1935).

Cervus canadensis roosevelti Merriam†*

1827. *C[ervus] occidentalis* Hamilton-Smith, *in* Griffith, The animal kingdom . . . by the Baron Cuvier . . . , vol. 4, p. 101. (Application of name regarded as doubtful by V. Bailey, North Amer. Fauna No. 55 (June), p. 81, footnote, Aug. 29, 1936.)

1866. *C[ervus] canadensis occidentalis* Blyth, Proc. Zool. Soc. London, 1865, pt. 3, p. 618, April 1866.

1897. *Cervus roosevelti* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 272, Dec. 17, 1897.

Type Locality.—Mount Elaine, on ridge between heads of Hoh, Elwha and Soleduc Rivers, near Mount Olympus, Mason County, Wash. *Range.*—Western slopes of Cascade Mountains and thence to coast in Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 394, Apr. 9, 1948) and Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 81, Aug. 29, 1936), and southward in humid coast belt and among inner Coast Ranges to north side of Golden Gate and San Francisco Bay, in Marin and Sonoma Counties, Calif.; east to vicinity of Mount Shasta (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 205, Sept. 26, 1933).

Cervus merriami Nelson†*

1902. *Cervus merriami* Nelson, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 7, Jan. 16, 1902.

Type Locality.—Head of Black River, White Mountains, Apache County, Ariz. Altitude, about 9,000 feet. *Range.*—Formerly distributed from White Mountains south to Chiricahua Mountains (Cahalane, Journ. Mamm., vol. 20, No. 4, p. 438, Nov. 14, 1939) in eastern Arizona; eastward in southern New Mexico through Mogollon group of mountains west of Rio Grande to Sacramento, White and Guadalupe mountains east of Rio Grande (V. Bailey, North Amer. Fauna No. 53 (December 1931), pp. 42–43, Mar. 1, 1932); and southward in Texas to southern part of Guadalupe Mountains (V. Bailey, North Amer. Fauna No. 25, p. 60, Oct. 24, 1905). Elk formerly were found in Wichita Mountains of Oklahoma (V. Bailey, 1905, loc. cit.).

Cervus nannodes Merriam†*

1905. *Cervus nannodes* Merriam, Proc. Biol. Soc. Washington, vol. 18, p. 24, Feb. 2, 1905.

Type Locality.—Buttonwillow, Kern County, Calif. *Range.*—Formerly (prior to 1860) nearly entire San Joaquin and Sacramento Valleys, especially in their lower parts; occurred north at least to Butte Creek, in Butte County, and south to vicinity of Bakersfield, Kern County; west through southern inner Coast Ranges as far as plains of Cuyama Valley, in San Luis Obispo County and extreme northern Santa Barbara County; also west to near Hernandez, San Benito County, and to south end of San Francisco Bay, in Santa Clara County, Calif. (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 206, Sept. 26, 1933).

Subfamily ODOCOILEINAE

Genus ODOCOILEUS Rafinesque

1780. *Dama* Zimmermann, Geographische Geschichte . . . , vol. 2, p. 129. (Type, *Dama virginiana* Zimmermann. Revived by Hershkovitz, Proc. Biol. Soc. Washington, vol. 61, p. 43, Apr. 30, 1948; see also Hershkovitz, Journ. Mamm., vol. 30, No. 1, p. 94, Feb. 14, 1949; and Morrison-Scott, Journ. Mamm., vol. 32, No. 1, p. 126, Feb. 15, 1951. Not *Dama* Frisch, Das Natur-System der vierfüssigen Thiere . . . , p. 3, 1775; type, "Der Damhirsch," or *Cervus dama* Linneaus; see Palmer, North Amer. Fauna No. 23, p. 215, Jan. 23, 1904; names applied by Frisch to genera rejected, since Frisch is not consistently binominal; see also Sherborn, Index Animalium: . . . , sect. 1, p. xxv, 1902; Thomas and Miller, Ann. Mag. Nat. Hist., ser. 7, vol. 16, pp. 461–464, October 1905; and Hershkovitz, Journ. Mamm., vol. 29, No. 3, p. 272, Aug. 31, 1948.)

1832. *Odocoileus* Rafinesque, Atlantic Journ. vol. 1, p. 109, autumn of 1832. (Type, *Odocoileus speleus* Rafinesque=*Cervus virginianus* Zimmermann, or a closely related subfossil form. For use of this name in place of *Cariacus* Lesson, Nouveau tableau du règne animal, . . . , mammifères, p. 173, 1842, and *Dorcelaphus* Gloger, Gemeinnütziges Hand- und Hilfsbuch der Naturgeschichte, Breslau, vol. 1, p. 140, 1841, see Merriam, Proc. Biol. Soc. Washington, vol. 12, pp. 99–100, Apr. 30, 1898.)

Subgenus EUCERVUS [21] Gray (black-tailed deer)

1866. *Eucervus* Gray, Ann. Mag. Nat. Hist., ser. 3, vol. 18, p. 338, October 1866. (Type, *Cervus macrotis* Say=*Cervus hemionus* Rafinesque.)

Odocoileus hemionus hemionus (Rafinesque) *

1817. *Cervus hemionus* Rafinesque, Amer. Monthly Mag., vol. 1, No. 6, p. 436, October 1817.

1823. *Cervus macrotis* Say, *in* Long, Account of an expedition from Pittsburgh to the Rocky Mountains, . . . , vol. 2, p. 88. (Mora River, near present town of Mora, N. Mex.)

1884. *Cariacus macrotis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1898. *Odocoileus hemionus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 100, Apr. 30, 1898.

1899. *Cariacus virgultus* Hallock, Forest and Stream, vol. 52, No. 21, p. 404, May 27, 1899. (Near Hallock, Kittson County, Minn. See V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 41, Jan. 8, 1927.)

Type Locality.—Mouth of Big Sioux River, S. Dak. (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 41, Jan. 8, 1927). *Range.*—Great Plains, Rocky Mountains and Great Basin, from west end of Great Slave Lake and Simpson in Mackenzie District, Northwest Territories, and Liard River Valley in extreme northern British Columbia at least to Lower Liard crossing (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 175, Jan. 24, 1947), southward to Kansas (extinct; Lantz, Kansas State Agric. College Bull. 129 (December 1904), p. 342, April 1905), mountains in northern half of New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 29, Mar. 1, 1932), Grand Canyon National Park in north-central Arizona, southern Nevada (Hall, Mammals of Nevada, pp. 621–628, July 1, 1946), Tehama and Mono Counties, Calif. (Cowan, California Fish and Game, vol. 22, No. 3, p. 210, July 1936); and from Red River Valley, Manitoba (Soper, Journ. Mamm., vol. 27, No. 2, p. 151, May 14, 1946), southern Cass County, Minn. (Gunderson, Journ. Mamm., vol. 29, No. 2, p. 184, May 14, 1948), North and South Dakota, and Nebraska (Swenk, Studies Zool. Lab. Univ. Nebraska No. 89, p. 17, September 1908) westward to summit of Cascade Mountains in Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 403, Apr. 9, 1948) and Oregon (V. Bailey, North Amer. Fauna No. 55 (June), pp. 83–86, Aug. 27, 1936).

Odocoileus hemionus sitkensis Merriam†*

1898. *Odocoileus columbianus sitkensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 100, Apr. 30, 1898.

1936. *Odocoileus hemionus sitkensis* Cowan, California Fish and Game, vol. 22, No. 3, p. 224, July 1936.

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[21] Mule deer of Pacific Coastal Region revised by Cowan, California Fish and Game, vol. 22, No. 3, pp. 155–246, July 1936.

Type Locality.—Sitka, Alaska. *Range.*—Coast and coastal islands of southeastern Alaska; from Dall Island north to Inian Island, Icy Straits, and on mainland from Port Simpson, British Columbia, north to Juneau, Alaska, and casually as far north as Atlin, British Columbia; southern limit of range unknown (Cowan, loc. cit.). Coast deer have been reported recently in Teslin and Little Atlin sections of southern Yukon, as far north as Nisutlin River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 176, Jan. 24, 1947).

Odocoileus hemionus columbianus (Richardson)* (Columbian black-tailed deer)

1829. *Cervus macrotis* var. *columbianus* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 257.

1852. *Cariacus lewisii* Gray, Proc. Zool. Soc. London, 1850, pt. 18, p. 239, Jan. 24, 1852. (Northwest coast of North America.)

1852. *Cariacus punctulatus* Gray, Proc. Zool. Soc. London, 1850, pt. 18, p. 239, Jan. 24, 1852. (California.)

1884. *Cariacus columbianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1898. *Odocoileus columbianus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 100, Apr. 30, 1898.

1898. *Odocoileus columbianus scaphiotus* Merriam†, Proc. Biol. Soc. Washington, vol. 12, p. 101, Apr. 30, 1898. (Laguna Ranch, Gabilan Range, San Benito County, Calif. Regarded as identical with *columbianus* by Cowan, California Fish and Game, vol. 22, No. 3, p. 215, July 1936.)

Type Locality.—Mouth of the Columbia River, Oreg. [=Cape Disappointment, Pacific County, Wash.; see Cowan, op. cit., pp. 218–219]. *Range.*—Coast and most of the coastal islands of western North America, from central British Columbia south to central California; eastward roughly to summit of Cascade–Sierra Nevada mountain chain (Cowan, op. cit., p. 216).

Odocoileus hemionus californicus (Caton)*

1876. *Cervus macrotis* var. *californicus* Caton, Amer. Nat., vol. 10, p. 464, August 1876.

1898. *Odocoileus hemionus californicus* Thompson-Seton, Forest and Stream, vol. 51, No. 15, p. 286, Oct. 8, 1898.

Type Locality.—Near Gaviota Pass, 40 miles up the coast (west) from Santa Barbara, Santa Barbara County, Calif. Altitude, 1,050 feet. *Range.*—Chiefly Transition and Upper Sonoran Zones in California from Orange County north on coast to Salmon Creek, Monterey County; through Tehachapi Mountains and northward on western slope of Sierra Nevada to El Dorado County (Cowan, California Fish and Game, vol. 22, No. 3, p. 211, July 1936).

Odocoileus hemionus inyoensis Cowan*

1933. *Odocoileus hemionus inyoensis* Cowan, Proc. Biol. Soc. Washington, vol. 46, p. 69, Apr. 27, 1933.

Type Locality.—Kid Mountain, 10 miles west of Big Pine, Inyo County, Calif. Altitude, 11,000 feet. *Range.*—Eastern slope of southern Sierra Nevada, in Owens Valley district of California (Cowan, California Fish and Game, vol. 22, No. 3, p. 228, July 1936).

Odocoileus hemionus fuliginatus Cowan*

1933. *Odocoileus hemionus fuliginatus* Cowan, Journ. Mamm., vol. 14, No. 4, p. 326, Nov. 13, 1933.

Type Locality.—Barona Ranch, 30 miles east of San Diego, San Diego County, Calif. *Range.*—From San Jacinto and Santa Rosa Mountains, Riverside County, and San Mateo Valley, San Diego County, Calif., southward at least to Corona, Sierra San Pedro Mártir, Baja California, México (Cowan, California Fish and Game, vol. 22, No. 3, p. 230, July 1936).

Odocoileus hemionus peninsulae (Lydekker) *

1898. *Mazama (Dorcelaphus) hemionus peninsulae* Lydekker, Proc. Zool. Soc. London, 1897, pt. 4, p. 900, April 1898.

1901. *Odocoileus hemionus peninsulae* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 16, Dec. 27, 1901.

Type Locality.—Between La Laguna and Victoria Mountain, Sierra Laguna, Baja California, México (see Cowan, California Fish and Game, vol. 22, No. 3, p. 232, July 1936). Altitude, about 6,000 feet. *Range.*—Known only from southern part of Baja California; from Cape San Lucas north through Sierra Laguna, and probably considerably farther, as a specimen from Santa María Mission is almost exactly intermediate between this race and *fuliginatus* (Cowan, loc. cit.).

Odocoileus hemionus cerrosensis Merriam†*

1898. *Odocoileus cerrosensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 101, Apr. 30, 1898.

1915. *Odocoileus hemionus cerrosensis* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, p. 180.

Type Locality.—Cerros [=Cedros] Island, off west coast of Baja California, México. *Range.*—Confined to Cedros Island, where it inhabits brush lands of northern part and the few areas suitable on southern part of island (Cowan, California Fish and Game, vol. 22, No. 3, p. 238, July 1936).

Odocoileus hemionus crooki (Mearns) †*

1897. *Dorcelaphus crooki* Mearns, Preliminary diagnoses of new mammals of the genera *Mephitis*, *Dorcelaphus*, and *Dicotyles*, from the Mexican border of the United States, p. 2, Feb. 11, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 468, Dec. 24, 1897. Regarded as hybrid by Thompson-Seton, Lives of game animals, . . . , vol. 3, pt. 1, pp. 327–328, 1929; and by Goldman and Kellogg, Journ. Mamm., vol. 20, No. 4, p. 507, Nov. 14, 1939.)

1898. *Odocoileus crooki* Thompson-Seton, Forest and Stream, vol. 51, No. 15, p. 286, Oct. 8, 1898.

1901. *Odocoileus hemionus canus* Merriam†, Proc. Washington Acad. Sci., vol. 3, p. 560, November 29, 1901. (Sierra en Media, Chihuahua, México. Regarded as a synonym of *crooki* by Goldman and Kellogg, Journ. Mamm., vol. 20, No. 4, p. 507, November 14, 1939.)

1939. *Odocoileus hemionus crooki* Goldman and Kellogg, Journ. Mamm., vol. 20, No. 4, p. 507, Nov. 14, 1939.

Type Locality.—Summit of the Dog Mountains, Hidalgo County, N. Mex. Altitude, 6,129 feet. *Range.*—Desert ranges of southern New Mexico, including Peloncilla, San Luis, Animas, Hatchet Mountains in the southwest, and presumably San Andres, Organ, and Franklin Mountains east of Rio Grande (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 33, Mar. 1, 1932) southward through Big Bend area of Texas (Borell and Bryant, Univ. California Publ. Zool., vol. 48, No. 1, pp. 40–41, Aug. 7, 1942) into Chihuahua and Coahuila, México (Goldman and Kellogg, Journ. Mamm., vol. 20, No. 4, p. 507, Nov. 14, 1939) and westward, formerly at least, to Bill Williams Mountain, Coconino County, and to Huachuca Mountains, Cochise County, Ariz. (Mearns, Bull. U. S. Nat. Mus. 56, pp. 185, 191, Apr. 13, 1907).

Odocoileus hemionus eremicus (Mearns) †*

1897. *Dorcelaphus hemionus eremicus* Mearns, Preliminary diagnoses of new mammals of the genera *Mephitis*, *Dorcelaphus*, and *Dicotyles*, from the Mexican border of the United States, p. 4, Feb. 11, 1897. (Preprint of Proc. U. S. Nat. Mus., vol. 20, p. 470, Dec. 24, 1897.)

1898. *Odocoileus hemionus eremicus* Thompson-Seton, Forest and Stream, vol. 51, No. 15, p. 286, Oct. 8, 1898.

Type Locality.—Sierra Seri, near Gulf of California, Sonora, México. *Range.*—From type locality in desert region of northwestern Sonora northward into valley of Colorado River as far as Parker, Ariz., westward through Chuckwalla and Chocolate Mountains, Calif., to near Coxcomb and Granite Mountains in northern Riverside County (formerly northwest through Imperial Valley to Indio), and southward into northeastern Baja California (Cowan, California Fish and Game, vol. 22, No. 3, pp. 235–236, July 1936).

Odocoileus hemionus sheldoni Goldman†*

1939. *Odocoileus hemionus sheldoni* Goldman, Journ. Mamm., vol. 20, No. 4, p. 497, Nov. 15, 1939.

Type Locality.—Tiburón Island, Sonora, México. *Range.*—Restricted to Tiburón Island.

Subgenus **ODOCOILEUS** Rafinesque (white-tailed deer)

Odocoileus virginianus virginianus (Zimmermann) *

1777. *Dama virginiana* Zimmermann, Specimen zoologiae geographicae, . . . , p. 532. (A non-binomial work.)

1780. *Dama virginiana* Zimmermann, Geographische Geschichte . . . , vol. 2, pp. 24, 129. (Regarded as earliest valid name for Virginia white-tailed deer by Hershkovitz, Proc. Biol. Soc. Washington, vol. 61, p. 41, Apr. 30, 1948.)

1884. *Cariacus virginianus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884. (Part.)

1898. *O[docoileus] virginianus* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 100, Apr. 30, 1898.

1919. *Cariacus wisconsinensis* Belitz, Wisconsin Conservationist, vol. 1, p. 1, November 1919. (Name proposed as a substitute for *virginianus* because author believed that the species originated in Wisconsin and not in Virginia. It is not based on a supposed local form peculiar to Wisconsin.)

Type Locality.—Virginia. *Range.*—From northern boundaries of Virginia, West Virginia, and Kentucky, south to central Georgia, southern Alabama, and southern Mississippi; Atlantic Coast west to Mississippi River. Intergrading on north with *borealis*, on south with *osceola* and *seminolus*, and on west with *macrourus*.

Odocoileus virginianus borealis Miller*

1900. *Odocoileus americanus borealis* Miller, Bull. New York State Mus. Nat. Hist., Albany, vol. 8, p. 83, Nov. 21, 1900.

1905. [*Odocoileus virginianus*] *borealis* Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 3, p. 704.

Type Locality.—Bucksport, Hancock County, Maine. *Range.*—Western Ontario east across southern Quebec, New Brunswick, and Nova Scotia; and from near James Bay (Newpost, Abitibi River), Gaspé Peninsula, and Anticosti Island south to southern Maryland, southern Pennsylvania, Ohio, Indiana, and Illinois. Southern boundaries fixed at Potomac and Ohio Rivers, and western limits at Mississippi and Red Rivers. Intergrading on south with typical *virginianus* and on west with *macrourus* and *dacotensis*.

Odocoileus virginianus dacotensis Goldman and Kellogg†*

1940. *Odocoileus virginianus dacotensis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 82, June 28, 1940.

Type Locality.—White Earth River, Mountrail County, N. Dak. *Range.*—Timbered stream valleys traversing northern plains and badlands from North Saskatchewan River Valley in Alberta (Edmonton) and Saskatchewan south through southern Manitoba (Riding Mountains), and the Dakotas to Platte River in Nebraska and northeastern Colorado (Denver and south fork of White River); west from Red River to Montana and Wyoming east of mountains. Intergrading on west with *ochrourus* along Rocky Mountains, on east with *borealis* in forest and lake regions of Ontario and Minnesota, and on south with *macrourus* in Iowa and eastern Kansas, and *texanus* in Colorado.

Odocoileus virginianus ochrourus V. Bailey†*

1932. *Odocoileus virginianus ochrourus* V. Bailey, Proc. Biol. Soc. Washington, vol. 45, p. 43, April 2, 1932.

Type Locality.—Coolin, south end of Priest Lake, Bonner County, Idaho. *Range.*—Rocky Mountain region, from British Columbia (Babine Mountains) and western Alberta (Jasper), south through eastern Washington, eastern Oregon, Idaho (Snake River), and western Montana to western Wyoming (Valley, South Fork Shoshone River, Green River, and Fort Bridger); formerly present in north-central Utah (north of Ogden) and formerly ranging from central Oregon south to northeastern California and western Nevada (Verdi, Truckee River). Intergrading on the west with *leucurus* and on the east with *dacotensis*.

Odocoileus virginianus leucurus (Douglas)*

1829. *Cervus leucurus* Douglas, Zool. Journ., vol. 4, No. 15, p. 330, October–January, 1829.

1898. *Odocoileus leucurus* Thompson-Seton, Forest and Stream, vol. 51, No. 15, p. 286, October 8, 1898.

1915. *Odocoileus virginianus leucurus* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 158, 162.

Type Locality.—Lower Columbia River [=Willamette River Valley; see V. Bailey, Proc. Biol. Soc. Washington, vol. 45, p. 44, Apr. 2, 1932], Oreg.

Range.—Formerly Pacific coastal region in southwestern Washington and northeastern Oregon, south to Umpqua River Valley; now nearly extinct, except for a local colony on islands and so-called "tidelands" along both sides of lower Columbia River in Washington; also a number estimated at between 200 and 300 in the State White-tailed Deer Refuge of 19,500 acres between Roseburg and North Umpqua River, Oreg. Formerly intergrading on the east with *ochrourus*.

Odocoileus virginianus couesi (Coues and Yarrow) †*

1875. *Cariacus virginianus* var. *couesi* Coues and Yarrow, Report upon the collections of mammals, . . . , *in* Rep. Geogr. Geol. Explor. and Surv., West of One Hundredth Merid. (Wheeler), vol. 5 (Zool.), p. 72.

1895. *Dorcelaphus couesi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 200, June 29, 1895.

1898. *Odocoileus couesi* Thompson-Seton, Forest and Stream, vol. 51, No. 15, p. 286, Oct. 8, 1898.

1903. *Odocoileus battyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 591, Nov. 12, 1903. (Rancho Santuario, an old "Spanish Grant" ranch on the plains, altitude 7,000 feet, northwestern Durango, México.)

1915. *O[docoileus] v[irginianus] baileyi* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, p. 158. (Accidental renaming of *battyi.*)

1915. *Odocoileus virginianus couesi* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 158, 164.

Type Locality.—Camp Crittenden [now Crittenden], on Sonoita Creek, between Santa Rita and Patagonia Mountains, Santa Cruz County, Ariz. *Range.*—Mountain regions, especially steeper slopes, from Colorado River (Ehrenberg) and Mogollon Mesa in southern Arizona and southwestern New Mexico (Datil Mountains), west of Río Grande Valley, south along Sierra Madre through central and eastern Sonora (west to Cobota and Pozo de Luis), western Chihuahua, northern Sinaloa, Durango, northeastern Nayarit (Santa Teresa) to western Zacatecas (Plateado), and northern Jalisco (near Bolaños). Integrading on south and southwest with *sinaloae.*

Odocoileus virginianus texanus (Mearns) †*

1898. *Dorcelaphus texanus* Mearns, Proc. Biol. Soc. Washington, vol. 12, p. 23, Jan. 27, 1898.

1898. *Odocoileus texanus* Thompson-Seton, Forest and Stream, vol. 51, No. 15, p. 286, Oct. 8, 1898.

1901. *Odocoileus texensis* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 17, Dec. 27, 1901. (Accidental renaming of *texanus.*)

1915. *Odocoileus virginianus texanus* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 158, 163, 1915.

Type Locality.—Fort Clark [north of Eagle Pass on Big Bend of Rio Grande], Kinney County, Tex. *Range.*—Rio Grande Valley in northeastern Chihuahua (Ojinaga), northern Coahuila (Monclova), northern Nuevo León, northern Tamaulipas, and southern and eastern Texas (San Elizario); north through eastern New Mexico, western Oklahoma, southern Colorado and western Kansas to near Republican River in southern Nebraska. Intergrading on north with *dacotensis*, on east with *macrourus* and *mcilhennyi,* and on south with *miquihuanensis.*

Odocoileus virginianus macrourus (Rafinesque) *

1817. *Cervus* [mispelled *Corvus*] *macrourus* Rafinesque, Amer. Monthly Mag., vol. 1, No. 6, p. 436, October 1817.

1895. *Dorcelaphus virginianus macrourus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 7, p. 263, Aug. 21, 1895.

1901. *Odocoelus virginianus louisianae* G. M. Allen, Amer. Nat., vol. 35, No. 414, p. 449, June 1901. (Mer Rouge, Morehouse Parish, La.)

1905. [*Odocoileus virginianus*] *macrurus* [sic] Trouessart, Catalogus Mammalium . . . , Suppl., fasc. 3, p. 704.

Type Locality.—"Plains of the Kangar [= Kansas] River" [= plains near Wakarusa Creek, Douglas County, Kans.]. *Range.*—Formerly Iowa, eastern Kansas, Missouri, eastern Oklahoma, Arkansas, northeastern Texas, and northern Louisiana. Now extinct throughout much of its former range. Intergrading on northwest with *dacotensis*, on southwest with *texanus*, on east with *borealis* and *virginianus*, and on south with *mcilhennyi*.

Odocoileus virginianus mcilhennyi F. W. Miller*

1928. *Odocoileus virginianus mcilhennyi* F. W. Miller, Journ. Mamm., vol. 9, No. 1, p. 57, Feb. 9, 1928.

Type Locality.—Near Avery Island, Iberia Parish, La. *Range.*—From near Matagorda Bay eastward along coast lowlands and adjacent big thicket country of southeastern Texas through coastal marshes and Mississippi River delta to near eastern border (Pearl River) of Louisiana. Intergrading on west with *texanus*, on north with *macrourus*, and on east with *osceola*.

Odocoileus virginianus taurinsulae Goldman and Kellogg†*

1940. *Odocoileus virginianus taurinsulae* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 87, June 28, 1940.

Type Locality.—Bulls Island, Charleston County, S. C. *Range.*—Known from Bulls Island only.

Odocoileus virginianus venatorius Goldman and Kellogg†*

1940. *Odocoileus virginianus venatorius* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 88, June 28, 1940.

Type Locality.—Hunting Island, Beaufort County, S. C. *Range.*—Known only from Hunting Island, but doubtless also inhabits Saint Helena and other closely adjoining islands.

Odocoileus virginianus hiltonensis Goldman and Kellogg†*

1940. *Odocoileus virginianus hiltonensis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 83, June 28, 1940.

Type Locality.—Hilton Head Island, Beaufort County, S. C. *Range.*—Definitely known only from Hilton Head Island.

Odocoileus virginianus nigribarbis Goldman and Kellogg†*

1940. *Odocoileus virginianus nigribarbis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 85, June 28, 1940.

Type Locality.—Blackbeard Island, McIntosh County, Ga. *Range.*—Blackbeard and Sapelo Islands, and possibly other islands along coast of Georgia.

Odocoileus virginianus osceola (Bangs)*

1896. *Cariacus osceola* Bangs, Proc. Biol. Soc. Washington, vol. 10, p. 26, Feb. 25, 1896.

1896. *Cariacus* (or *Damelaphus*) *fraterculus* [Coues], The Nation, vol. 62, p. 404, May 21, 1896. (Florida. Described by Cory, Hunting and fishing in Florida, . . . , p 113, 1896. Part.)

1901. *Odocoileus osceola* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 17, Dec. 27, 1901.

1915. *Odocoileus virginianus osceola* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 158, 162. (Part.)

Type Locality.—Citronelle, Citrus County, Fla. *Range.*—Western coast of Florida north of Tampa Bay and lowlands west along Gulf coast of southern Alabama, and southern Mississippi to Pearl River. Intergrading on north with *virginianus*, and on west apparently replaced by *mcilhennyi* west of lower part of Pearl River Valley.

Odocoileus virginianus seminolus Goldman and Kellogg†*

1940. *Odocoileus virginianus seminolus* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 86, June 28, 1940.

Type Locality.—Ten miles northeast of Everglades, Collier County, Fla. *Range.*—Peninsular Florida, north along east coast and through central Florida to southern Georgia (Okefenokee Swamp). Intergrading on north with *virginianus* and on west with *osceola.*

Odocoileus virginianus clavium Barbour and G. M. Allen*

1922. *Odocoileus virginianus clavium* Barbour and G. M. Allen, Journ. Mamm., vol. 3, No. 2, p. 73, May 9, 1922.

Type Locality.—Big Pine Key, one of the southern Florida Keys, Monroe County, Fla. *Range.*—Formerly generally distributed in the compact, southern group of Florida Keys, where the occurrence of deer was noted in early exploration; said to swim from one key to another. Owing to human occupation of the Keys, combined with the disastrous effects of hurricanes, the deer have gradually disappeared until few are left.

Odocoileus virginianus carminis Goldman and Kellogg†*

1940. *Odocoileus virginianus carminis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 81, June 28, 1940.

Type Locality.—Botellas Cañon, Sierra del Carmen, northern Coahuila, México. Altitude, 6,500 feet. *Range.*—Known at present to occur in Sierra del Carmen, Coahuila, and closely adjoining Chisos Mountains across Río Grande in Texas. Doubtless also inhabiting Serranias del Burro, east of Sierra del Carmen, and perhaps other mountain ranges of northern Coahuila.

Odocoileus virginianus miquihuanensis Goldman and Kellogg†*

1940. *Odocoileus virginanus miquihuanensis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 84, June 28, 1940.

Type Locality.—Sierra Madre Oriental, near Miquihuana, southwestern Tamaulipas, México. Altitude, 6,500 feet. *Range.*—Sierra Madre Oriental and adjacent territory from southeastern Coahuila (Sierra Guadalupe) south to southern San Luis Potosí (mountains near Jesús María), and east to western Tamaulipas.

Odocoileus virginianus veraecrucis Goldman and Kellogg†*

1940. *Odocoileus virginianus veraecrucis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 89, June 28, 1940.

Type Locality.—Chijol, northern Veracruz, México. Altitude, 200 feet. *Range.*—Lowlands along Gulf coast from central Tamaulipas (Soto la Marina) south in Arid Tropical Zone to near port of Veracruz.

Odocoileus virginianus toltecus (Saussure) *

1860. *Cervus toltecus* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 247.

1884. *Cariacus toltecus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1901. *Odocoileus toltecus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 17, Dec. 27, 1901.

1915. *Odocoileus virginianus toltecus* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 159, 167. (Part.)

Type Locality.—Near Orizaba, Veracruz, México. *Range.*—High mountains along boundaries of western Veracruz, eastern Puebla, and northeastern Oaxaca (Achotal), especially rain forests on eastern slopes near Orizaba and Mirador, facing Gulf of Mexico. Doubtless intergrading with neighboring forms, including *veraecrucis* and *thomasi*, along eastern basal slopes of mountains, and with *oaxacensis* on high tableland to the west.

Odocoileus virginianus mexicanus (Gmelin) *

1788 [*Cervus*] *mexicanus* Gmelin, Caroli a Linné systema naturae . . . , ed. 13, vol. 1, p. 179.

1902. *Dama lichtensteini* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 20, Feb. 1, 1902.

1901. *Odocoileus mexicanus* Miller and Rehn, Proc. Boston Soc. Nat. Hist., vol. 30, p. 16, Dec. 27, 1901.

1915. *Odocoileus virginianus mexicanus* Lydekker, Catalogue of the ungulate mammals in The . . . British Museum, vol. 4, pp. 158, 165.

Type Locality.—Valley of México, México (see Osgood, Proc. Biol. Soc. Washington, vol. 15, p. 88, Apr. 25, 1902; and Journ. Mamm., vol. 1, No. 2, p. 77, Mar. 2, 1920). *Range.*—High mountains and elevated interior tableland region from Guanajuato on the north and vicinity of Valley of México (Tlalpan, altitude 8,500 feet) south to Morelos and east to Puebla.

Odocoileus virginianus oaxacensis Goldman and Kellogg†*

1940. *Odocoileus virginianus oaxacensis* Goldman and Kellogg, Proc. Biol. Soc. Washington, vol. 53, p. 85, June 28, 1940.

Type Locality.—Mountains 15 miles west of Oaxaca, Oaxaca, México. Altitude, 9,500 feet. *Range.*—Known only from high mountains in vicinity of Oaxaca and adjoining Cerro San Felipe. Doubtless also inhabiting neighboring high mountain ranges of central Oaxaca.

Odocoileus virginianus sinaloae J. A. Allen*

1903. *Odocoileus sinaloae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 19, p. 613, Nov. 14, 1903.

1915. *Odocoileus virginianus sinaloae* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 159, 166.

Type Locality.—Escuinapa, Sinaloa, México. *Range.*—Pacific coast region and adjacent mountain slopes, from northern Sinaloa (Culiacán) south to western Jalisco; intergrading with *acapulcensis* in Colima and extending thence into interior to include central Michoacán. Intergrading on north with *couesi.*

Odocoileus virginianus acapulcensis (Caton)*

1877. *Cervus acapulcensis* Caton, The antelope and deer of America, p. 113.

1898. *O[docoileus] acapulcensis* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 104, Apr. 30, 1898.

1915. *Odocoileus virginianus acapulcensis* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 159, 167.

Type Locality.—Acapulco, Guerrero, México. *Range.*—A narrow belt along Pacific coastal plain and adjacent slopes, mainly west and south of crest of high mountains of interior of México from Colima (Armería) southeastward to Isthmus of Tehuantepec (Tehuantepec).

Odocoileus virginianus thomasi Merriam†*

1898. *Odocoileus thomasi* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 102, Apr. 30, 1898.

1915. *Odocoileus virginianus thomasi* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 159, 168.

Type Locality.—Huehuetán, Chiapas, México. *Range.*—Gulf Coastal Plain from southern Veracruz (Catemaco) to eastern Tabasco (Montecristo) and northern Chiapas (Palenque), and south across Isthmus of Tehuantepec, and thence along Pacific coast west and south of crest of coast range (Chaine de Chiapas) to near or beyond Río Naraujo, Guatemala.

Odocoileus virginianus nelsoni Merriam†*

1898. *Odocoileus nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 103, Apr. 30, 1898.

1915. *Odocoileus virginianus nelsoni* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 159, 168.

Type Locality.—San Cristóbal, highlands of Chiapas, México. Altitude, 8,500 feet. *Range.*—High mountains of central Chiapas (San Cristóbal) and southeast along Sierras through Guatemala to El Salvador; southern limits of range undetermined.

Odocoileus virginianus yucatanensis (Hays)*

1872. *Cervus yucatanensis* Hays, Ann. Lyc. Nat. Hist., New York, vol. 10, No. 8, p. 218, October--December, 1872.

1946. *Odocoileus virginianus yucatanensis* Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 360, Feb. 12, 1946.

Type Locality.—Yucatán and the southern part of México. *Range.*—Yucatán, northern Campeche and northern part of Territory of Quintana Roo, México, intergrading with *truei* to the southward.

Odocoileus virginianus truei Merriam†*

1889. *Cariacus clavatus* True, Proc. U. S. Nat. Mus., vol. 11, (1888), p. 417, July 5, 1889. (Not of Hamilton-Smith, 1827, which is unidentifiable.)

1898. *Odocoileus truei* Merriam, Proc. Biol. Soc. Washington, vol. 12, p. 103, Apr. 30, 1898. (Substitute name for *Cariacus clavatus* True.)

1901. *Odocoileus costaricensis* Miller†, Proc. Biol. Soc. Washington, vol. 14, p. 35, Apr. 25, 1901. (Talamanca region, on eastern side of Costa Rica, between coast and foot of Cordilleras.)

Type Locality.—Segovia River, about 50 miles from sea, Comarca de El Cabo, northern Nicaragua. *Range.*—From northeastern Guatemala, south through lowlands of British Honduras (Belize), Honduras, and Nicaragua to southern Costa Rica (Talamanca district).

Odocoileus virginianus chiriquensis J. A. Allen*

1910. *Odocoileus rothschildi chiriquensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 28, p. 95, Apr. 30, 1910.

1915. *Odocoileus virginianus chiriquensis* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 158, 172.

Type Locality.—Boquerón, Chiriquí, Panamá. *Range.*—Forest borders and partly open savanna regions from Bayano River, Panamá, west mainly through southern part of Isthmus to western Chiriquí, doubtless intergrading with *truei* in Costa Rica; ranging across to Atlantic coast in partly cleared spaces along route of Panama Canal.

Odocoileus virginianus rothschildi (Thomas)

1902. *Dama rothschildi* Thomas, Nov. Zool. vol. 9, p. 136, Apr. 10, 1902.

1902. *Odocoileus rothschildi* Thomas, Proc. Biol. Soc. Washington, vol. 15, p. 198, Oct. 10, 1902.

1915. *Odocoileus virginianus rothschildi* Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 4, pp. 158, 171.

Type Locality.—Coiba Island, off west coast of Panamá. *Range.*—Restricted to Coiba Island.

Genus MAZAMA Rafinesque (brockets)

1817. *Mazama* Rafinesque, Amer. Monthly Mag., vol. 1, No. 5, p. 363, September 1817. (Type, *Mazama pita* Rafinesque=*Cervus rufinus* Illiger. See Merriam, Science, new ser., vol. 1, p. 208, Feb. 22, 1895.)

Mazama americana temama (Kerr)*

1792. *Cervus temama* Kerr, The Animal kingdom, . . . , p. 303. (Based on "tema-Maçame" of Hernandez, Rerum medicarum Novae Hispaniae thesaurus, seu plantarum, animalium, mineralium Mexicanorum historiae . . . (Nova Plantarum, Animalium et Mineralium Mexicanorum), Rome, p. 325, 1651.)

1817. *Mazama tema* Rafinesque, Amer. Monthly Mag., vol. 2, No. 1, p. 44, November 1817. (Substitute name for *temama* Kerr.)

1860. *C[ervus] sartorii* Saussure, Rev. Mag. Zool., Paris, ser. 2, vol. 12, p. 252, June 1860. (Mirador, Veracruz, México.)

1884. *Cariacus rufinus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1951. *Mazama americana temama* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951. (See also J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 34, pp. 541–542, Nov. 2, 1915.)

Type Locality.—Mirador, Veracruz, México. *Range.*—Recorded from points north of type locality, Mirador, in central Veracruz, and at Xilitla, San Luis Potosí, México (Dalquest, Occ. Pap. Mus. Zool. Louisiana State Univ. No. 23, p. 14, July 10, 1950), southward to southeastern Chiapas, México (Villa, Anal. Inst. Biol., Univ. Nac. México, vol. 19, No. 2, p. 527, June 30, 1949) and Bokowina, British Honduras (Hershkovitz, loc. cit.).

Mazama americana cerasina Hollister†*

1914. *Mazama tema cerasina* Hollister, Proc. Biol. Soc. Washington, vol. 27, p. 209, Oct. 31, 1914.
1915. *Mazama sartorii cerasina* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 34, p. 542, Nov. 2, 1915.
1951. *Mazama americana cerasina* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951.

Type Locality.—Talamanca [=Sipurio, Río Sixaola, Limón, near Caribbean coast], Costa Rica, *Range.*—Recorded from Uaxactún, Petén (Murie, Univ. Michigan Mus. Zool. Misc. Publ. 26, p. 29, July 15, 1935), and Barrillos, Guatemala (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 68, p. 57, Dec. 12, 1934), southward through Honduras and Nicaragua to southern Costa Rica (Goodwin, Bull. Amer. Mus. Nat. Hist., vol. 87, p. 449, Dec. 31, 1946).

Mazama americana reperticia Goldman†*

1913. *Mazama tema reperticia* Goldman, Smithsonian Misc. Coll., vol. 60, No. 22, p. 2, Feb. 28, 1913.
1915. *Mazama sartorii reperticia* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 34, p. 542, Nov. 2, 1915.
1951. *Mazama americana reperticia* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951.

Type Locality.—Gatún, Canal Zone, Panamá. *Range.*—From southern Darién (Cana) to Gatún in Canal Zone and westward to Bóquete in Chiriquí, Panamá (Goldman, Smithsonian Misc. Coll., vol. 69, No. 5, p. 79, Apr. 26, 1920).

Mazama gouazoubira pandora Merriam†*

1901. *Mazama pandora* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 105, July 19, 1901.
1945. *Mazama sartorii pandora* Goldman and Moore, Journ. Mamm., vol. 26, No. 4, p. 360, Feb. 12, 1945.
1951. *Mazama gouazoubira pandora* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951.

Type Locality.—Tunkás, Yucatán, México. *Range.*—Yucatán Peninsula.

Mazama gouazoubira permira R. Kellogg†*

1946. *Mazama permira* R. Kellogg, Proc. Biol. Soc. Washington, vol. 59, p. 57, Mar. 11, 1946.
1951. *Mazama gouazoubira permira* Hershkovitz, Fieldiana-Zool., Chicago Nat. Hist. Mus. Publ. 670, vol. 31, p. 567, July 10, 1951.

Type Locality.—Isla San José, Archipiélago de las Perlas, Golfo de Panamá, Panamá. *Range.*—Known from Isla San José only.

Genus ALCES Gray (moose)

1755. *Alce* Frisch, Das Natur-System der vierfüssigen Thiere, . . . , p. 3. (Type, "das Elend Thiere," or *Cervus alces* Linnaeus. See Palmer, North Amer. Fauna No. 23, p. 88, Jan. 23, 1904. Names applied to genera rejected, since Frisch is not consistently binomial. See Sherborn, Index animalium; . . . , p. xxv, 1902; Thomas and Miller, Ann. Mag. Nat. Hist., ser. 7, vol. 16, pp. 461–464, October 1905; Hershkovitz, Journ. Mamm., vol. 29, No. 3, p. 272, Aug. 31, 1948; and Bull. Zool. Nomenclature, vol. 4, pts. 19–21, p. 549, June 9, 1950.)

1821. *Alces* Gray, London Med. Repos., vol. 15, p. 307, Apr. 1, 1821. (Type, *Cervus alces* Linnaeus.)

1902. *Paralces* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 160, July 1, 1902. (Substitute name proposed on assumption that *Alces* Gray is a homonym of *Alce* Blumenbach, Handbuch der Naturgeschichte, ed. 6, p. 697, 1799.)

Alces alces americana (Clinton)*

1822. *Cervus americanus* [Clinton], Letters on the Natural History and Internal Resources of the State of New York, p. 193.

1835. *Alces americanus* Jardine, *in* The naturalist's library (Edit. Jardine), vol. 11 (Mammalia, vol. 3, Deer, etc.), p. 125.

1884. *Alces machlis* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1891. *Alce americanus* Merriam, North Amer. Fauna No. 5, p. 79, July 30, 1891.

1907. *Alces columbae* Lydekker, The Field, London, vol. 109, p. 182, Feb. 2, 1907. (Somewhere in British Columbia; entered as Ontario (not British Columbia) in Zoological Record, 1907, vol. 44, Mamm., p. 69. Regarded as indeterminable by Peterson, Occ. Pap. Roy. Ontario Mus. Zool. No. 9, p. 6, May 25, 1950.)

1952. *Alces alces americana* Peterson, Contrib. Roy. Ontario Mus. Zool., No. 34, p. 28, Oct. 15, 1952.

Type Locality.—"Country north of Whitestown" [probably in the western Adirondack region], N. Y. *Range.*—Wooded portion of eastern Canada, except Prince Edward Island, from Nova Scotia and New Brunswick westward through Quebec to eastern Ontario (see Peterson, op. cit., p. 2); southward formerly through Maine, Vermont, New Hampshire, northwestern Massachusetts (Crane, Journ. Mamm., vol. 12, No. 3, p. 272, Aug. 24, 1931), and New York (Merriam, The mammals of the Adirondack region, northeastern New York, . . ., pp. 138–143, Oct. 11, 1884).

Alces alces andersoni Peterson*

1950. *Alces americana andersoni* Peterson, Occ. Pap. Roy. Ontario Mus. Zool., No. 9, p. 1, May 25, 1950.

1952. *Alces alces andersoni* Peterson, Contrib. Roy. Ontario Mus. Zool., No. 34, p. 24, Oct. 15, 1952.

Type Locality.—Fifteen miles east of Brandon, section 27, township 10, range 16, Sprucewood Forest Reserve, Manitoba, Canada. *Range.*—Northern Michigan and Minnesota, western Ontario, westward to central British Columbia, north to eastern Yukon Territory and Mackenzie delta, Northwest Territories; southward formerly to Red River Valley and Turtle Mountains region of North Dakota (V. Bailey, North Amer. Fauna No. 49 (December 1926), pp. 31–32, Jan. 8, 1927) and northern Wisconsin.

Alces alces shirasi Nelson†*

1914. *Alces americanus shirasi* Nelson, Proc. Biol. Soc. Washington, vol. 27, p. 72, Apr. 25, 1914.

1952. *Alces alces shirasi* Peterson, Contrib. Roy. Ontario Mus. Zool., No. 34, p. 23, Oct. 15, 1952.

Type Locality.—Snake River, 4 miles south of Yellowstone Park, Teton County, Wyo. *Range.*—Western Wyoming, eastern and northern Idaho, and western Montana, northward into southeastern British Columbia. Formerly in Blue Mountains of southeastern Washington (Dice, Journ. Mamm., vol. 1, No. 1, p. 20, Nov. 28, 1919) and recorded also in Ferry County, northeastern Washington (Scheffer and Dalquest, Journ. Mamm., vol. 25, No. 4, p. 413, Dec. 12, 1944). Accidental in northeastern Utah (Durrant, Univ. Kansas Publ. Mus. Nat. Hist., vol. 6, p. 461, Aug. 10, 1952).

Alces alces gigas Miller†*

1899. *Alces gigas* Miller, Proc. Biol. Soc. Washington, vol. 13, p. 57, May 29, 1899.

1934. *Alces americanus gigas* Hall, Univ. California Publ. Zool., vol. 40, No. 9, p. 381, Nov. 5, 1934.

1952. *Alces alces gigas* Peterson, Contrib. Roy. Ontario Mus. Zool., No. 34, p. 21, Oct. 15, 1952.

Type Locality.—North side of Tustumena Lake, Kenai Peninsula, Alaska. *Range.*—Wooded parts of Alaska, western Yukon in Northwest Territories, and northwestern British Columbia (see Peterson, Occ. Pap. Roy. Ontario Mus. Zool., No. 9, p. 2, May 25, 1950). Recorded north to Anaktuvuk and John River Valleys (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950).

Genus RANGIFER[23] Hamilton-Smith (reindeer and caribou)

1827. *Rangifer* Hamilton-Smith, *in* Griffith, The animal kingdom . . . by the Baron Cuvier . . ., vol. 5, p. 304. (Type, *Cervus tarandus* Linnaeus.)

1827. *Tarandus* Billberg, Synopsis faunae Scandinaviae, p. 22. (Type, *Cervus tarandus* Linnaeus.)

Rangifer arcticus arcticus (Richardson)* (Barren Ground caribou)

1829. *Cervus tarandus* var. *arctica* Richardson, Fauna Boreali-Americana; . . ., vol. 1, p. 241.

1884. *Rangifer tarandus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1896. *Rangifer arcticus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 234, Nov. 21, 1896.

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[23] Revised by Jacobi, Das Rentier, eine zoologische Monographie der Gattung Rangifer, Zool. Anzeiger, vol. 96, Suppl., pp. vii+264, figs. 32, pls. 6, November 1931. See also Murie, North Amer. Fauna No. 54 (June), pp. 93, figs. 16, pls. 10, Aug. 8, 1935; and Anderson, The present status and distribution of the big game mammals of Canada, *in* Trans. Third North American Wildlife Conference, Dept. Mines and Resources, Ottawa, pp. 390–406, and maps 1–11, 1938.

Type Locality.—Fort Enterprise, about lat. 64° 30′ N., long. 113° W., Mackenzie District, Northwest Territories, Canada (see J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 24, p. 584, Sept. 11, 1908). *Range.*—Mainly in unforested parts of Mackenzie and Keewatin Districts, Northwest Territories, from west side of Hudson Bay and Melville Peninsula, west to lower Mackenzie Valley, and north to southern fringe of islands north of mainland Arctic coast in this region. Some individuals and small herds remain in northern part of range at all seasons, but there is a general but irregular migration southward in autumn, reaching as far south as Churchill River or beyond in northern Manitoba, Reindeer Lake on Manitoba–Saskatchewan boundary, Athabaska Lake, and occasionally straggling into Wood Buffalo Park in northeastern Alberta (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 178, Jan. 24, 1947).

Rangifer arcticus caboti G. M. Allen*

1914. *Rangifer arcticus caboti* G. M. Allen, Proc. New England Zool. Club, vol. 4, p. 104, Mar. 24, 1914. (Regarded as a distinct species by Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 108, November 1931; and by Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 180, Jan. 24, 1947.)

1915. *Tarandus rangifer labradorensis* Millais, *in* The gun at home and abroad, . . ., vol. 4, p. 259. (" . . . horns brought into Nain, Davis Inlet, and Fort Chimo.")

Type Locality.—Thirty miles north of Nachvak, eastern Laborador, Canada. *Range.*—Northern parts of Ungava Peninsula, from Hudson Strait southward in unforested regions of Labrador for an undetermined distance, and on eastern side of Hudson Bay in province of Quebec about to Great Whale River (Anderson, loc. cit.).

Rangifer arcticus fortidens Hollister†*

1912. *Rangifer fortidens* Hollister, Smithsonian Misc. Coll., vol. 56, No. 35, p. 3, Feb. 7, 1912.

1931. *Rangifer arcticus fortidens* Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 94, November 1931.

Type Locality.—Head of Moose Pass branch of Smoky River, Alberta, Canada. *Range.*—Northern Rocky Mountains from about extreme northern part of Banff National Park, Mount Robson region in British Columbia, and parts of Jasper National Park (Mount Edith Cavell and Tongue Creek); limits of range not determined, nor its relationship to *osborni* to northwest, *montanus* on west, and *sylvestris* to northeast (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 178, Jan. 24, 1947).

Rangifer arcticus osborni J. A. Allen*

1902. *Rangifer osborni* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 149, Apr. 16, 1902.

1931. *Rangifer arcticus osborni* Jacobi, Zool. Anzeiger, vol. 96, Suppl., p. 90, November 1931.—Murie, North Amer. Fauna No. 54 (June), p. 81, Aug. 8, 1935.

1935. *Rangifer montanus selousi* Barclay, Proc. Zool. Soc. London, 1935, pt. 2, p. 306, July 4, 1935. (Mountains south of South Fork of Macmillan River, Yukon, Canada; altitude, 5,000 feet.)

Type Locality.—Cassiar Mountains [60 miles southeast of Dease Lake], British Columbia, Canada. *Range.*—Northern British Columbia and parts of southern Yukon (Teslin Lake, north to Wolf River, headwaters of Pelly and Macmillan Rivers), Canada; intergrading with *stonei* in parts of southern Yukon (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 179, Jan. 24, 1947).

Rangifer arcticus montanus Thompson-Seton*

1899. *Rangifer montanus* Thompson-Seton, Ottawa Naturalist, vol. 13, No. 5, pp. 129–130, August 1899.

1931. *Rangifer arcticus montanus* Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 92, November 1931.

Type Locality.—Illecillewaet watershed, near Revelstoke, Selkirk Range, British Columbia, Canada. *Range.*—Interior mountain ranges of southern and central British Columbia; originally in most of the Selkirks and in suitable places in drainage of upper Fraser, North Thompson, and Chilcotin Rivers, and in Gold Range (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 179, Jan. 24, 1947); rare or casual along Canadian boundary in northeastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 404, Apr. 9, 1948); formerly in northern Idaho south at least as far as Elk City, Idaho County (Davis, The Recent mammals of Idaho, p. 371, Apr. 5, 1939).

Rangifer arcticus dawsoni Thompson-Seton

1900. *Rangifer dawsoni* Thompson-Seton, Ottawa Naturalist, vol. 13, p. 260, February 1900.

1931. *Rangifer arcticus dawsoni* Jacobi, Zool. Anzeiger, Leipzig, vol. 96. Suppl., p. 95, November 1931.

Type Locality.—Graham Island, Queen Charlotte Islands, British Columbia, Canada. *Range.*—Known only from Graham Island, the northernmost and largest island of Queen Charlotte group (see Cowan, Canadian Field-Nat., vol. 50, No. 9, p. 147, Dec. 3, 1936).

Rangifer arcticus stonei J. A. Allen*

1901. *Rangifer stonei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 14, p. 143, May 28, 1901.

1912. *Rangifer excelsifrons* Hollister†, Smithsonian Misc. Coll., vol. 56, No. 35, p. 5, Feb. 7, 1912. (Meade River, near Point Barrow, Alaska. Regarded as identical with *stonei* by Murie, North Amer. Fauna No. 54, (June), p. 76, Aug. 8, 1935.)

1915. *Tarandus rangifer ogilvyensis* Millais, *in* The gun at home and abroad, . . . , vol. 4, p. 263. (Ogilvie Mountains, north of Dawson, Yukon, Canada. Regarded as identical with *stonei* by Murie, North Amer. Fauna No. 54 (June), p. 76, Aug. 8, 1935.)

1919. *Rangifer mcguirei* Figgins, Proc. Colorado Mus. Nat. Hist., vol. 3, No. 1, p. 1, Dec. 23, 1919. (Kletson Creek, a tributary of the White River, 4 miles east of Alaska-Yukon boundary, Yukon, Canada. Regarded as identical with *stonei* by Murie, North Amer. Fauna No. 54 (June), p. 76, Aug. 8, 1935.)

1931. *Rangifer arcticus stonei* Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 89, November 1931.

Type Locality.—Kenai Peninsula, Alaska. *Range.*—Most of central and northern Alaska, excluding Alaska Peninsula and Unimak Island; also in western Yukon, Canada, more sparingly to the eastward; the form is absent from most of southern coastal belt of Alaska, having been exterminated on Kenai Peninsula, and is scarce in western and parts of northern Alaska (Murie, loc. cit.). Caribou found in small strip of Northwest Territories west of Mackenzie River delta are also referable to this form (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 180, Jan. 24, 1947).

Rangifer arcticus granti J. A. Allen*

1902. *Rangifer granti* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 122, Mar. 31, 1902.

1935. *Rangifer arcticus granti* Murie, North Amer. Fauna No. 54 (June), p. 80, Aug. 8, 1935.

Type Locality.—Western end of Alaska Peninsula, opposite Popof Island, Alaska. *Range.*—Alaska Peninsula and Unimak Island, formerly Unga and other Islands at west end of Alaska Peninsula and probably northward some distance along Bering seacoast (Murie, loc. cit.).

Rangifer arcticus asiaticus Jacobi*

1931. *Rangifer arcticus asiaticus* Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 85, November 1931.

Type Locality.—Kolyma, Siberia, U.S.S.R. *Range.*—A total of 1,280 reindeer were transported to northwestern Alaska, mainly on Seward Peninsula, between years 1891 and 1902 from Chukotsk Peninsula and coast of Anadir Gulf; existing herds of domesticated reindeer in Alaska are mainly descendants of these introduced animals (Jackson, Report on introduction of domestic reindeer into Alaska, Senate Doc. 111, 54 Cong. 1 Sess., vol. 4, pp. 9–16, 1896; Palmer, U. S. Dept. Agr. Misc. Publ. 207, pp. 1–40, November 1934). Reindeer from herds at Buckland, Alaska, were driven across northern Alaska to Arctic coast region west of Mackenzie River delta in 1933, the main herd of 2,730 animals crossing the Mackenzie River in 1935; as the herds increased in region just east of Mackenzie delta and on Richards Island they were divided and distributed eastward to lower Anderson River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 187, Jan. 24, 1947).

Rangifer pearyi J. A. Allen*

1902. *Rangifer pearyi* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 409, Oct. 31, 1902.

Type Locality.—Ellesmere Land, lat. 79° N., Franklin District, Northwest Territories, Canada. *Range.*—Ellesmere Island (Craig Harbour, Fram Fjiord), Sverdrup Islands (Hyperit Point, Axel Heiberg Island), and probably other islands in nothern part of Canadian Arctic Archipelago, but specimens from some of the larger islands (Devon, Bathurst, Cornwallis, Melville, and Prince of Wales Islands) are needed for determination of range of this species or its relationship with other forms of caribou. Caribou of northwestern Greenland north of Kane Basin are perhaps referable to this form (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 180, Jan. 24, 1947).

Rangifer caribou caribou (Gmelin)* (woodland caribou)

1788. [*Cervus tarandus*] *caribou* Gmelin, Caroli a Linné systema naturae . . . , vol. 1, p. 177.

1854. *Rangifer caribou* Audubon and Bachman, Viviparous Quadrupeds of North America, text, vol. 3, p. 111.

1884. *Rangifer tarandus caribou* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1912. *Rangifer caribou caribou* Miller, U. S. Nat. Mus. Bull. 79, p. 392, Dec. 31, 1912.

Type Locality.—Eastern Canada [=Province of Quebec]. *Range.*—Formerly found in most parts of Nova Scotia but has been extinct in that province since about 1924; possibly exists in very small numbers in northeastern New Brunswick; in Quebec found locally on Gaspé Peninsula (Mount Albert, 4,000 feet) and in some numbers in suitable areas north of Gulf of St. Lawrence and probably in southern Labrador; irregularly in wooded areas in western Quebec; in Ontario considered to have disappeared entirely from east of a line drawn from east end of Lake Superior to James Bay; one small band on Shakespeare Island in Lake Superior, a few about Lake Nipigon, Lake of the Woods, and Rainy Lake area in western Ontario; local bands in small numbers north of Canadian National Railway lines in northern Ontario (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 180, Jan. 24, 1947). Formerly present in Michigan (Burt, Mammals of Michigan, p. 262, 1946) and northern Minnesota (Swanson, Minnesota Dept. Conserv. Tech. Bull. 2, p. 100, 1945). Recorded also from northern Somerset County, Maine (Palmer, Journ. Mamm., vol. 30, No. 4, p. 437, Nov. 17, 1949).

Rangifer caribou sylvestris (Richardson)*

1829. *Cervus tarandus* var. *β sylvestris* Richardson, Fauna Boreali-Americana; . . . , vol. 1, p. 250.

1912. *Rangifer caribou sylvestris* Hollister, Smithsonian Misc. Coll., vol. 56, No. 35, p. 4, Feb. 7, 1912.

1915. *Tarandus rangifer keewatinensis* Millais, *in* The gun at home and abroad, . . . , vol. 4,, p. 257. (Central and northern Manitoba, Keewatin, North and [South] Saskatchewan and as far north as the Peace River and Lake Athabasca.)

Type Locality.—Southwestern shores of Hudson Bay. *Range.*—In parts of northwestern Ontario, northern Manitoba, northern Saskatchewan, northern Alberta, and wooded parts of Mackenzie district as far north as Great Bear Lake and lower Mackenzie Valley, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 181, Jan. 24, 1947).

Rangifer caribou terraenovae Bangs*

1896. *Rangifer terraenovae* Bangs, Preliminary description of the Newfoundland caribou, Boston, p. 1, Nov. 11, 1896.

1896. *Rangifer terraenovae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 8, p. 233, Nov. 21, 1896. (Grand Lake, Newfoundland.)

1931. *Rangifer caribou terraenovae* Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 122, November 1931.

Type Locality.—Codroy, Newfoundland. *Range.*—Restricted to Newfoundland.

Rangifer tarandus tarandus (Linnaeus)

1758. *Cervus tarandus* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 67.

1843. *Rangifer tarandus* Gray, List of . . . Mammalia in the . . . British Museum, p. 181.

1931. *Rangifer tarandus tarandus* Jacobi, Zool. Anzeiger, Leipzig, vol. 96, Suppl., p. 64, November 1931.

Type Locality.—High mountains of Swedish Lapland. *Range.*—Attempts were made to introduce raindeer from Lapland to central Yukon, Newfoundland, Fort Smith in Northwest Territories, and Lake Harbour in southern Baffin Land, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 187, Jan. 24, 1947).

Rangifer tarandus grönlandicus (Borowski) *

1780. *Cervus grönlandicus* Borowski, Gemeinnüzzige Naturgeschichte des Thierreichs, . . . , vol. 1, pt. 3, p. 72.

1858. *Rangifer groenlandicus* Baird, Mammals, *in* Rept. Expl. Surv. Railr. to Pacific vol. 8, pt. 1 (Washington, 1857), p. 634, July 14, 1858.

1931. *Rangifer tarandus groenlandicus* Jacobi, Zool. Anzieger, Leipzig, vol. 96, Suppl., p. 69, November 1931.

Type Locality.—Greenland. *Range.*—West coast of Greenland as far north as Melville glacier region northeast of Baffin Bay; formerly common, but now absent from many formerly occupied areas and greatly reduced in numbers elsewhere (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 181, Jan. 24, 1947).

Superfamily BOVOIDEA

Family ANTILOCAPRIDAE (pronghorns)

Genus ANTILOCAPRA Ord

1818. *Antilocapra* Ord, Journ. Phys. Chim. Hist. Nat. et Arts, vol. 87, p. 149. (Type, *Antilope americana* Ord.)

Antilocapra americana americana (Ord) *

1815. *Antilope americana* Ord, *in* [Guthrie], A new geographical, historical and commercial grammar; . . . , Philadelphia, ed. 2, vol. 2, p. 292 (described on p. 308).

1818. *Antilocapra americana* Ord, Journ. Phys. Chim. Hist. Nat. et Arts, vol. 87, p. 149.

1884. *Antilocapra americana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

Type Locality.—Plains and highlands of the Missouri River. *Range.*—Formerly north to a little beyond South Saskatchewan River in Saskatchewan, Red Deer River in Alberta, and southwestern Manitoba, Canada (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 182, Jan. 24, 1947); southward to southern Texas (V. Bailey, North Amer. Fauna No. 25, p. 67, Oct. 24, 1905), central New Mexico (V. Bailey, North Amer. Fauna No. 53 (December 1931), p. 22, Mar. 1, 1932), central Arizona, and Colorado Desert of southern California (Grinnell, Univ. California Publ. Zool., vol. 40, No. 2, p. 209, Sept. 26, 1933); eastward to western Minnesota (Johnson, Journ. Mamm., vol. 11, No. 4, p. 451, Nov. 11, 1930), western Iowa, northwestern Missouri, Kansas, and Oklahoma (Blair, Amer. Midl. Nat., vol. 22, No. 1, p. 130, July 1939); and westward to western Montana, southern Idaho, Nevada (Hall, Mammals of Nevada, p. 629, July 1, 1946), and California (Grinnell, loc. cit.).

Antilocapra americana oregona V. Bailey†*

1932. *Antilocapra americana oregona* V. Bailey, Proc. Biol. Soc. Washington, vol. 45, p. 45, Apr. 2, 1932.

Type Locality.—Hart Mountain (Warner Mountains), Lake County, Oreg. *Range.*—Open sagebrush country of eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 70, Aug. 29, 1936); limits of range not determined.

Antilocapra americana mexicana Merriam†*

1901. *Antilocapra americana mexicana* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 31, Apr. 5, 1901.

Type Locality.—Sierra en Media [about 10 miles south of New Mexico border], Chihuahua, México. *Range.*—Formerly southeastern Arizona (Cahalane, Journ, Mamm., vol. 20, No. 4, p. 439, Nov. 14, 1939; Goldman, Proc. Biol. Soc. Washington, vol. 58, p. 4, Mar. 21, 1945), and southwestern New Mexico eastward to Jornada and Tularosa Desert Valleys and region west of Organ Mountains (V. Bailey North Amer. Fauna No. 53 (December 1931), pp. 27, 28, Mar. 1, 1932) southward through extreme western Texas, Chihuahua, and Coahuila to northeastern Durango, México (Nelson, U. S. Dept. Agr. Bull. 1346, pp. 62–63, fig. 20 (map), August 1925).

Antilocapra americana sonoriensis Goldman†*

1945. *Antilocapra americana sonoriensis* Goldman, Proc. Biol. Soc. Washington, vol. 58, p. 3, Mar. 21, 1945.

Type Locality.—Forty miles north of Costa Rica, a ranch on northern side of Río de Sonora, southwest of Hermosillo, Sonora, México. *Range.*—Desert plains of central western Sonora and north to southern Arizona

Antilocapra americana peninsularis Nelson†*

1912. *Antilocapra americana peninsularis* Nelson, Proc. Biol. Soc. Washington, vol. 25, p. 107, June 29, 1912.

Type Locality.—Forty-five miles south of Calmallí, Baja California, México. *Range.*—Middle Baja California, south to head of Ballenas Bay in about lat. 27° N., and north on west coast to about lat. 29°30′ N.; on gulf side to beyond lat. 32° N., to southern end of Colorado Desert.

Family BOVIDAE

Subfamily BOVINAE

Genus BISON[23] Hamilton-Smith

1827. *Bison* Hamilton-Smith, *in* Griffith, The animal kingdom . . ., by the Baron Cuvier . . ., vol. 5, p. 373. (Type, *Bos bison* Linnaeus.)

Bison bison bison (Linnaeus)* (plains bison)

1758. [*Bos*] *bison* Linnaeus, Systema naturae, ed. 10, vol. 1, p. 72.

1884. *Bison americanus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

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[23] Revised by Skinner and Kaisen, Bull. Amer. Mus. Nat. Hist., vol. 89, pp. 127–256, Oct. 31, 1947.

1888. *B[ison] bison* Jordan, Manual of the vertebrate animals of the Northern United States, . . . , ed. 5, p. 337.

1915. *Bison americanus pennsylvanicus* Shoemaker. A Pennsylvania bison hunt, p. 9. (Pennsylvania. Description based on hearsay and therefore regarded as invalid by Skinner and Kaisen, Bull. Amer. Mus. Nat. Hist., vol. 89, p. 163, Oct. 31, 1947. See Opinion 2, International Commission on Zoological Nomenclature, Smithsonian Inst. Spec. Publ. 1938, pp. 5–6, July 1910.)

1933. *Bison bison septemtrionalis* [sic] Figgins, Proc. Colorado Mus. Nat. Hist., vol. 12, p. 28, Dec. 5, 1933. (Six miles northeast of Palmer, Merrick County, Nebr. Regarded as identical with *bison* by Skinner and Kaisen, Bull. Amer. Mus. Nat. Hist., vol. 89, pp. 161, 163, Oct. 31, 1947.)

Type Locality.—México (see Thomas, Proc. Zool. Soc. London, 1911, pt. 1, p. 154, Mar. 22, 1911. Southern or southeastern United States, not México, regarded as type locality by Reed, Journ. Mamm., vol. 33, No. 3, p. 392, Aug. 19, 1952). *Range.*—Formerly distributed from Saskatchewan River in Alberta and Saskatchewan, and western Manitoba southward through Mississippi River drainage region to Gulf coast of Mississippi, Louisiana, and Texas; westward into Montana east of continental divide, Wyoming, Colorado, New Mexico, and northeastern México (J. A. Allen, Mem. Geol. Surv. Kentucky, vol. 1, pt. 2, pp. 128–130, 1876); and eastward south of Great Lakes to southwestern New York, western Pennsylvania, western Virginia, western North Carolina, western South Carolina, northern Georgia, northwestern Florida (Swanton, Journ. Mamm., vol. 19, No. 3, p. 379, Aug. 18, 1938; Swanton, Journ. Mamm., vol. 22, No. 3, p. 322, Aug. 14, 1941; Schorger, Journ. Mamm., vol. 26, No. 4, pp. 432–433, Feb. 12, 1945), and northern Alabama (Skinner and Kaisen, op. cit., p. 158, map 3).

Bison bison athabascae Rhoads* (woodland bison)

1898. *Bison bison athabascae* Rhoads, Proc. Acad. Nat. Sci. Philadelphia, vol. 49 (1897), p. 498, Jan. 18, 1898.

1932. *Bison bison oregonus* V. Bailey†, Proc. Biol. Soc. Washington, vol. 45, p. 48, Apr. 2, 1932. (Malheur Lake, Harney County, Oreg. Regarded as identical with *athabascae* by Skinner and Kaisen, Bull. Amer. Mus. Nat. Hist., vol. 89, pp. 164, 166, Oct. 31, 1947.)

1933. *Bison bison haningtoni* Figgins, Proc. Colorado Mus. Nat. Hist., vol. 12, No. 4, p. 30, Dec. 5, 1933. (Head of Rock Creek, northeast South Park, Park County, Colo. Regarded as identical with *athabascae* by Skinner and Kaisen, Bull. Amer. Mus. Nat. Hist., vol. 89, pp. 164–166, Oct. 31, 1947.)

Type Locality.—Within 50 miles southwest of Fort Resolution, Mackenzie District, Northwest Territories, Canada. *Range.*—Formerly distributed from Seward Peninsula and Arctic coast of Alaska southward through Yukon, southwestern Mackenzie, northeastern British Columbia (Fort St. John region and Liard River; Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 183, Jan. 24, 1947), Alberta, western Montana, Idaho, eastern Oregon, northeastern California (Merriam, Journ. Mamm., vol. 7, No. 3, pp. 211–214, Aug. 9, 1926), northern Nevada, western Wyoming, Utah (Presnall, Journ. Mamm., vol. 19, No. 1, p. 111, Feb. 13, 1938), and western Colorado (Skinner and Kaisen, op. cit., p. 158, map 3).

Subfamily CAPRINAE

Genus OREAMNOS Rafinesque (mountain goats)

1817. *Oreamnos* Rafinesque, Amer. Monthly Mag., vol. 2, p. 44, November 1817. (Type, *Mazama dorsata* Rafinesque=*Rupicapra americana* Blainville.)

Oreamnos americanus americanus (Blainville) *

1816. *R[upicapra] americana* Blainville, Bull. Soc. Philom., Paris, p. 80.

1884. *Mazama montana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1912. *Oreamnos americanus americanus* Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 186, Dec. 24, 1912.

Type Locality.—Cascade Range, near the Columbia River, in Oregon or Washington (regarded as probably Mount Adams, Wash., the point where goats come nearest the Columbia River, by Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 409, Apr. 9, 1948). *Range.*—Cascade Mountain region in Washington and southwestern British Columbia (Kimsquit); present distribution irregular and region of intergradation with *columbiae* not determined (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 186, Jan. 24, 1947). White goats do not now and perhaps never did inhabit Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 61, Aug. 29, 1936).

Oreamnos americanus missoulae J. A. Allen*

1904. *Oreamnos montanus missoulae* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 20, Feb. 10, 1904.

1912. *Oreamnos americanus missoulae* Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 186, Dec. 24, 1912.

Type Locality.—Missoula, Missoula County, Mont. *Range.*—From Sawtooth mountains in Blaine County, Idaho (Davis, The Recent mammals of Idaho, p. 379, Apr. 5, 1939), and western Montana north along Rocky Mountains and adjacent ranges to western Alberta (Banff, Spray Creek, Closson, Mount Robson, Bow River, head) and eastern British Columbia (Golden) nearly to Peace River (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 186, Jan. 24, 1947). A single record for Stevens County, northeastern Washington (Scheffer and Dalquest, Journ. Mamm., vol. 25, No. 4, p. 412, Dec. 12, 1944). Introduced in 1924 into Black Hills of South Dakota (Harmon, Journ. Mamm., vol. 25, No. 2, p. 149, May 26, 1944).

Oreamnos americanus columbiae Hollister*

1904. *Oreamnos montanus columbianus* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 20, p. 20, Feb. 10, 1904. (Not *Capra columbiana* Desmoulins, 1823.)

1912. *Oreamnos americanus columbiae* Hollister, Proc. Biol. Soc. Washington, vol. 25, p. 186, Dec. 24, 1912.

Type Locality.—Shesley Mountains, northwestern British Columbia, Canada. *Range.*—High mountains of northwestern British Columbia and southern Yukon (Ida Lake, Lake Arkell, Lake Bennett, Pelly River, head), irregular in distribution. Immature specimens from Mackenzie Mountains (Nahanni region, Glacier Lake in Iron Mountains, 4,500 feet) in southwestern part of Mackenzie

District, Northwest Territories, are probably referable to this form. Limits of range very imperfectly known (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 186, Jan. 24, 1947).

Oreamnos kennedyi Elliot

1900. *Oreamnus* [sic] *kennedyi* Elliot, Field Columb. Mus. Publ. 46, Zool. Ser., vol. 3, p. 3, June 20, 1900.

Type Locality.—Mountains at mouth of Copper River, opposite Kayak Island, Alaska. *Range.*—Recorded also from area between headwaters of Knik and Matanuska Rivers, Alaska (Osgood, North Amer. Fauna No. 21, p. 62, Sept. 26, 1901), and Knik, Alaska (Elliot, Field Columb. Mus. Publ. 115, Zool. Ser., vol. 8, p. 95, Mar. 4, 1907).

Genus OVIBOS[24] Blainville (musk oxen)

1816. *Ovibos* Blainville, Bull. Soc. Philom., Paris, p. 76. (Type, *Bos moschatus* Zimmermann.)

1911. *Bosovis* Kowarzik, Zool. Anzeiger, vol. 37, p. 107, Feb. 14, 1911. (Type, *Bos moschatus* Zimmermann.)

Ovibos moschatus moschatus (Zimmermann) *

1780. *Bos moschatus* Zimmermann, Geographische Geschichte . . . , vol. 2, p. 86.

1822. *Ovibus moschatus* Desmarest, Mammalogie, . . . , pt. 2, p. 492 [*in* Encyclopedie méthodique . . .].

1884. *Ovibos moschatus* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1908. *O*[*vibos*] *moschatus mackenzianus* Kowarzik, Zool. Anzeiger, vol. 33, p. 617, Nov. 10, 1908. (Great Slave Lake, Mackenzie District, Northwest Territories, Canada. See Kowarzik, Fauna Arct., vol. 5, p. 89, May 24, 1910.)

Type Locality.—Between Seal and Churchill Rivers, Manitoba, Canada. *Range.*—Formerly generally distributed in suitable areas from west side of Hudson Bay (except in range of *niphoecus*) to Arctic coast and Arctic Alaska west to Point Barrow region; now restricted to a few small isolated bands from upper Thelon and upper Back Rivers, probably intergrading with *niphoecus* in some areas; scattered south of Bathurst Inlet, and a few in region north of Great Bear Lake (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 183, Jan. 24, 1947).

Ovibos moschatus niphoecus Elliot

1905. *Ovibos moschatus niphoecus* Elliot, Proc. Biol. Soc. Washington, vol. 18, p. 135, Apr. 18, 1905.

Type Locality.—Head of Wager River, Keewatin District, Northwest Territories, Canada. *Range.*—Undetermined. Musk oxen are not known to occur east of Repulse Bay; J. A. Allen (Mem. Amer. Mus. Nat. Hist., new ser., vol. 1, p. 190, March 1913) states that they probably range north from Chesterfield Inlet, Baker Lake, and Dubawant River to Arctic coast of mainland, but apparently only specimens from Wager Inlet region were examined (see Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 183, Jan. 24, 1947).

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[24] Revised by J. A. Allen, Mem. Amer. Mus. Nat. Hist., new ser., vol. 1, pp. 103–226, March 1913.

Ovibos moschatus wardi Lydekker*

1900. *Ovibos moschatus wardi* Lydekker, Nature, vol. 63, p. 157, Dec. 13, 1900.

1909. *O[vibos] moschatus melvillensis* Kowarzik, Zool. Anzeiger, vol. 33, p. 617, Nov. 10, 1908. (Melville Island. See Kowarzik, Fauna Arct., vol. 5, p. 90, May 24, 1910.)

Type Locality.—East Greenland. Clavering Island. *Range.*—Coast of East Greenland from above lat. 70° N., ranging north around North Greenland, and thence southward along west coast to about lat. 81° N. Formerly through Canadian Arctic Archipelago from northern Ellesmere Island and Devon Island, south to Lancaster Sound, westward to Prince Patrick Island, Melville Island, Banks Island, and Victoria Island. Extinct on Banks Island since about beginning of present century and probably, if not entirely, exterminated on Victoria Island a few years later. Still found in some numbers from northern Ellesmere Island to Melville Island (Anderson, Nat. Mus. Canada Bull. 102 (1946), p. 184, Jan. 24, 1947).

Genus OVIS[25] Linnaeus (sheep)

1758. *Ovis* Linneaus, Systema naturae, ed. 10, vol. 1, p. 70. (Type, *Ovis aries* Linnaeus.)

Ovis canadensis canadensis Shaw* (mountain sheep)

1804. *Ovis canadensis* Shaw, Naturalist's Misc., vol. 51, text to pl. 610. (? possibly December 1803.)

1884. *Ovis montana* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1891. *Ovis canadensis* Merriam, North Amer. Fauna No. 5, p. 81, July 30, 1891.

1900. *Nemorhoedus palmeri* Cragin†, Bull. Geol. Soc. Amer., vol. 11, p. 611, Aug. 10, 1900. (Cave on Glen Eyrie estate, about 5 miles northwest of Colorado Springs, El Paso County, Colo. For status see Miller, Smithsonian Misc. Coll., vol. 82, No. 14, pp. 1–2, Dec. 22, 1930.)

Type Locality.—Mountains on Bow River, near Exshaw, Alberta, Canada. (See Preble, *in* Thompson, David Thompson's narrative of his explorations in western America, 1784–1812, ed. J. B. Tyrrell, Toronto, p. lxxxi, 1916.) *Range.*—In Canada confined to Rocky Mountains in which it ranges north to vicinity of Wapiti Pass some 120 miles south of Peace River; south through western Montana, eastern Idaho, Wyoming, Utah, and into Colorado (Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 533, November 1940), as well as northeastern Nevada (Hall, Mammals of Nevada, p. 640, July 1, 1946), eastern Oregon (V. Bailey, North Amer. Fauna No. 55 (June), p. 63, Aug. 29, 1936), and formerly eastern Washington (Dalquest, Univ. Kansas Publ. Mus. Nat. Hist., vol. 2, p. 406, Apr. 9, 1948).

Ovis canadensis auduboni Merriam†*

1901. *Ovis canadensis auduboni* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 31, Apr. 5, 1901.

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[25] Revised by Cowan, Amer. Midl. Nat., vol. 24, No. 3, pp. 505–580, November 1940.

Type Locality.—Upper Missouri. Probably Badlands between Cheyenne and White Rivers, S. Dak. (V. Bailey, North Amer. Fauna No. 49 (December 1926), p. 25, Jan. 8, 1927). *Range.*—Thought to have covered Badlands adjoining Missouri River in North and South Dakota, extreme western Nebraska, and probably into eastern Wyoming (Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 542, November 1940).

Ovis canadensis mexicana Merriam†*

1901. *Ovis mexicanus* Merriam, Proc. Biol. Soc. Washington, vol. 14, p. 30, Apr. 5, 1901.

1901. *Ovis canadensis mexicanus* Lydekker, The great and small game of Europe, western and northern Asia and America, p. 11.

1907. *Ovis canadensis gaillardi* Mearns†, U. S. Nat. Mus. Bull. 56, pt. 1, p. 240, Apr. 13, 1907. (Gila Mountains, between Tinajas Altas and Mexican boundary, Yuma County, Ariz. Regarded as identical with *mexicana* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 545, November 1940.)

1912. *Ovis canadensis texianus* V. Bailey†, Proc. Biol. Soc. Washington, vol. 25, p. 109, June 29, 1912. (Guadalupe Mountains, El Paso County, Tex. Regarded as identical with *mexicana* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 545, November 1940.)

1916. *Ovis sheldoni* Merriam†, Proc. Biol. Soc. Washington, vol. 29, p. 130, September 6, 1916. (El Rosario, northern Sonora, México. Regarded as identical with *mexicana* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 545, November 1940.)

Type Locality.—Lago de Santa María, Chihuahua, México. *Range.*—Mountain ranges of México, extreme southwestern Texas, southern New Mexico and Arizona; south in Sonora to Seriland, opposite Tiburón Island, and to central Chihuahua; in western and northwestern Arizona along valley of Colorado River intergrading with *cremnobates*, *nelsoni*, and *canadensis* (Cowan, loc. cit.).

Ovis canadensis californiana Douglas*

1829. *Ovis californianus* Douglas, Zool. Journ., vol. 4, p. 332, January 1829.

1912. *Ovis cervina californiana* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 25, Mar. 4, 1912.

1912. *Ovis cervina sierrae* Grinnell, Univ. California Publ. Zool., vol. 10, No. 5, p. 144, May 9, 1912. (East slope of Mount Baxter, Sierra Nevada, Inyo County, Calif.; altitude, 11,000 feet. Regarded as identical with *californiana* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 554, November 1940.)

1912. *Ovis canadensis californiana* Miller, U. S. Nat. Mus. Bull. 79, p. 396, Dec. 31, 1912.

1915. *Ovis canadensis samilkameenensis* Millais, *in* The gun at home and abroad, . . . , vol. 4, p. 324. (Similkameen Mountains, British Columbia, Canada. Regarded as identical with *californiana* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 554, November 1940.)

1913. *Ovis dalli ellioti* Kowarzik, Zool. Anzeiger, vol. 41, p. 444. (Nomen nudum.)

Type Locality.—Near Mount Adams, Yakima County, Wash., (see J. A. Allen, loc. cit.; Falls of the Columbia, near mouth of Deschutes River regarded as the type locality by V. Bailey, North Amer. Fauna No. 55 (June), pp. 64–65, Aug. 29, 1936). *Range.*—Formerly from Chilcotin River, British Columbia, south through Cascades of Washington and Oregon and Sierra Nevada of California to vicinity of Mount Whitney (Cowan, loc. cit.); and western Nevada south probably to Mineral County (Hall, Mammals of Nevada, p. 639, July 1, 1946).

Ovis canadensis nelsoni Merriam†*

1897. *Ovis nelsoni* Merriam, Proc. Biol. Soc. Washington, vol. 11, p. 218, July 15, 1897.

1898. *Ovis canadensis nelsoni* Lydekker, Wild oxen, sheep, and goats of all lands, living and extinct, p. 208.

Type Locality.—Grapevine Mountains [high limestone ridge forming middle of range, about 5 miles southerly from Grapevine Peak], on boundary between Inyo County, Calif., and Esmeralda County, Nev., just south of lat. 37° N. *Range.*—California, south and east of Sierras and eastward locally through desert ranges of Nevada (Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 560, November 1940).

Ovis canadensis cremnobates Elliot*

1904. *Ovis cervina cremnobates* Elliot, Field Columb. Mus. Publ. 87, Zool. Ser., vol. 3, No. 14 (December 1903), p. 239, Jan. 7, 1904.

1912. *Ovis canadensis cremnobates* Miller, U. S. Nat. Mus. Bull. 79, p. 396, Dec. 31, 1912.

Type Locality.—Mattomi, Sierra San Pedro Mártir, Baja California, México. *Range.*—Extreme southern California and northern Baja California for an undetermined distance southward (Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 565, November 1940).

Ovis canadensis weemsi Goldman†*

1937. *Ovis canadensis weemsi* Goldman, Proc. Biol. Soc. Washington, vol. 50, p. 30, Apr. 2, 1937.

Type Locality.—Cajón de Tecomaja, Sierra de la Giganta, about 30 miles south of Cerro de la Giganta, southern Baja California, México. Altitude, 2,000 feet. *Range.*—Sierra de la Giganta and northward, grading toward *cremnobates* in Sierra de San Borjas in central part of Peninsula.

Ovis dalli dalli Nelson†* (white sheep)

1884. *Ovis montana dalli* Nelson, Proc. U. S. Nat. Mus., vol. 7, p. 13, June 3, 1884.

1884. *Ovis montana dalli* True, Proc. U. S. Nat. Mus., vol. 7 (App., Circ. 29), p. 592, Nov. 29, 1884.

1897. *Ovis dalli* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 112, Apr. 8, 1897.

Type Locality.—Mountains south of Fort Yukon on west bank of Yukon River, Alaska; probably Tanana Hills. *Range.*—Mountains of Alaska, Yukon Territory, Northwest Territories west of Mackenzie River, south in main chain of Rockies [Mackenzie Mountains] to Nahanni River. In northern British Columbia and central Yukon intergrades broadly with *stonei*, but typical *dalli* is to be found in St. Elias Range in northwestern British Columbia bordering on boundary of Alaska Panhandle (Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 526, November 1940). Recorded north to Tolugak Lake, near head of Anaktuvuk River, Alaska (Rausch, Journ. Mamm., vol. 31, No. 4, p. 466, Nov. 21, 1950).

Ovis dalli kenaiensis J. A. Allen*

1902. *Ovis dalli kenaiensis* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 16, p. 145, Apr. 23, 1902. (Regarded as identical with *dalli* by Osgood, North Amer. Fauna No. 30, p. 51, Oct. 7, 1909; and as valid by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 528, November 1940.)

Type Locality.—Head of Sheep Creek, Kenai Peninsula, Alaska. *Range.*—Kenai Peninsula.

Ovis dalli stonei J. A. Allen* (black sheep)

1897. *Ovis stonei* J. A. Allen, Bull. Amer. Mus. Nat. Hist., vol. 9, p. 111, Apr. 8, 1897.

1898. *Ovis canadensis liardensis* Lydekker, Wild oxen, sheep, and goats of all lands, living and extinct, p. 215. (Liard River, British Columbia, Canada.)

1901. *Ovis fannini* Hornaday, Ann. Rep. New York Zool. Soc., 1900, Appendix No. 1, p. 2, January 8, 1901. (Dawson City, Yukon, Canada. Regarded as identical with *stonei* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 530, November 1940.)

1907. *Ovis cowani* Rothschild, Proc. Zool. Soc. London, 1907, pt. 2, p. 238, Aug. 1, 1907. (Near Mount Logan, British Columbia, Canada; see Lydekker, Catalogue of the ungulate mammals in the . . . British Museum, vol. 1, p. 120, 1913. Regarded as identical with *stonei* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 530, November 1940.)

1915. *Ovis canadensis niger* Millais, *in* The gun at home and abroad, . . . , vol. 4, p. 324. (Mountains at head of Skeena River, British Columbia, Canada. Regarded as identical with *stonei* by Cowan, Amer. Midl. Nat., vol. 24, No. 3, p. 530, November 1940.)

Type Locality.—Che-on-nee Mountains, headwaters of Stikine River, British Columbia, Canada. Altitude, about 6,500 feet. *Range.*—Omineca and Cassiar districts of British Columbia completely north of lat. 56° 30′ N., to summit of Coast Range and Lake Atlin, east to Rocky Mountains, south to Peace River along slopes bordering on Nabesche River, Ingenika Range, and Klappan Range; north in Cassiar Mountains and adjacent ranges at least as far as Pelly River, but in northern Cassiar and Pelly Mountains blending into *dalli* (Cowan, op. cit., p. 531).

Type Localities

The type localities mentioned in the foregoing list are arranged under the following general headings:

Arctic Region
North Pacific Ocean
Greenland
North America (no definite locality)
Canada
United States
México
Central America
Caribbean Sea
West Indies

Names recognized as valid are given as they now appear in the present list; those that are regarded as synonyms are left in the form used by the first describer.

Place names used by the original describer have, where possible, been made to conform in spelling and accent with the current usage of the country involved. The original has been left unchanged and the current usage added in brackets where a change might have been misleading. Variant names appearing in the list are shown in parentheses.

ARCTIC REGION

No exact locality: *Odobenus rosmarus rosmarus.*

Arctic Seas: *Monodon monoceros.*

NORTH PACIFIC OCEAN

No exact locality: *Orca pacifica; Eumetopias jubata.*

Lat. 53° N., long. 155° W., approximately, south of Alaska Peninsula: *Callorhinus ursinus cynocephalus.*

Lat. 12° N., long. 120° W.: *Tursiops nuuanu.*

North America, off: *Lagenorhynchus thicolea.*

Northwest Coast of North America and Coast of Japan: *Eubalaena sieboldtii.*

Oregon to Aleutian Islands, off coasts of: *Orca ater.*

GREENLAND

No exact locality: *Alopex lagopus groenlandicus; Halichoerus grypus; Rangifer tarandus grönlandicus.*

Greenland and Labrador, coasts of: *Phoca hispida hispida.*

Greenland and Newfoundland: *Phoca groenlandica.*

Southern Greenland and Newfoundland: *Cystophora cristata.*

Southern Greenland, Iceland, and Coasts of Scotland: *Erignathus barbatus barbatus.*

Eastern Greenland, pack ice off: *Thalarctos eogroenlandicus.*

Western Greenland: *Thalarctos maritimus groenlandicus.*

Cape York, Baffin Bay: *Canis lupus orion.*

Clavering Island: *Lepus arcticus persimilis; Ovibos moschatus wardi.*

Discovery Bay (probably Ellesmere Island): *Mustela audax.*

Gap Valley, 7¼ miles northeast of Cape Brevoort: *Mustela erminea polaris.*

Greenland Seas: *Balaena mysticetus.*

Jameson Land: *Dicrostonyx groenlandicus groenlandicus.*

Julianehaab, near: *Lepus arcticus porsildi.*

Robinson's (Robertson) Bay, about 60 miles southeast of Etah: *Lepus arcticus groenlandicus.*

Upernavik: *Beluga rhinodon.*

NORTH AMERICA

No exact locality: *Parascalops breweri; Procyon lotor rufescens.*

Eastern North America: *Homo sapiens americanus; Urocyon cinereoargenteus cinereoargenteus; Euarctos americanus americanus; Martes americana americana.*

Northeastern North America: *Lutreola vison borealis.*

Northwest Coast of North America: *Odocoileus lewisii.*

Western limits beyond Rocky Mountains: *Cervus canadensis occidentalis.*

CANADA

No exact locality: *Canis lupus canadensis.*

Hudson Bay: *Citellus parryii phaeognatha; Castor canadensis canadensis; Microtus xanthognathus; Zapus hudsonius hudsonius; Procyon hudsonius; Gulo luscus luscus; Rangifer caribou sylvestris.*

Labrador and Hudson Bay (probably southwest of Hudson Bay): *Taxidea taxus taxus.*

Marshy places from Hudson Bay to Rocky Mountains: *Sorex palustris palustris.*

Seas of Canada: *Delphinus canadensis.*

Alberta

No exact locality: *Ursus hylodromus.*

Athabasca River, Rocky Mountains on headwaters of: *Ursus canadensis rungiusi.*

Athabasca River, headwaters of, near Athabasca Pass: *Ochotona princeps princeps.*

Banff, Canadian National Park: *Citellus columbianus albertae.*

Calgary: *Vulpes velox velox.*

Chief Mountain (Waterton) Lake, 3½ miles north of international boundary: *Eutamias amoenus luteiventris.*

Exshaw, near, mountains on Bow River: *Ovis canadensis canadensis.*

Henry House: *Myotis lucifugus pernox; Myotis altifrons.*

Jackpine River, head of, near Mount Bess, close to British Columbia boundary: *Ursus horribilis dusorgus.*

Jasper House, north end of Lake Jasper, Peace River [Edson] District: *Glaucomys sabrinus alpinus; Neotoma cinerea drummondii; Microtus richardsoni richardsoni; Microtus pennsylvanicus drummondii; Ursus latifrons.*

Medicine Hat, South Saskatchewan River: *Thomomys talpoides andersoni.*

Moose Pass Branch of Smoky River, head of: *Marmota caligata oxytona; Citellus lateralis tescorum; Rangifer arcticus fortidens.*

Mount Inglesmaldie, near Banff: *Ochotona princeps lutescens.*

Peace River, near headwaters of one of southern tributaries of, or between there and Jasper House region: *Lemmus trimucronatus helvolus.*

South Edmonton: *Thomomys talpoides loringi.*

Wolf Plain, 30 miles west of Rock Lake: *Arctomys parryi erythrogluteia.*

British Columbia

No exact locality (see Ontario also): *Alces columbae.*

Eastern British Columbia: *Ursus ophrus.*

Edge of humid western slope of Rocky Mountains, somewhere between Kicking Horse Pass and Columbia River: *Martes americana abietinoides.*

Southern British Columbia: *Perognathus parvus lordi.*

Agassiz: *Microtus oregoni serpens.*

Anarchist Mountain, near Osoyoos–Bridesville summit, about 8 miles east of Osoyoos Lake: *Perognathus parvus laingi.*

Ashcroft: *Eutamias amoenus affinis; Peromyscus maniculatus artemisiae.*

Atnarko River: *Ursus warburtoni.*

Balaclava Island: *Peromyscus maniculatus balaclavae.*

Beaverfoot Range, Kootenay District: *Ursus pulchellus ereunetes.*

Bennett City, head of Lake Bennett, Skeena (Cassiar) District: *Citellus parryii plesius; Neotoma cinerea saxamans.*

Bowen Island, Howe Sound: *Microtus townsendii cummingi.*

Calvert Island, Safety Cove: *Sorex obscurus calvertensis.*

Cassiar Mountains, 60 miles southwest of Dease Lake: *Rangifer arcticus osborni.*

Che-on-nee Mountains, headwaters of Stikine River: *Ovis dalli stonei.*

Chezacut Lake, Chilcotin River: *Lepus americanus pallidus.*

CANADA—Continued

British Columbia—Continued

Clearwater Creek, a north branch of Stikine River: *Ursus hoots.*

Church (Lihumitson) Mountain, Lihumitson Park, Mount Baker Range, New Westminster District: *Eutamias amoenus felix; Phenacomys intermedius oramontis.*

Coldstream, 3½ miles southwest of Vernon: *Microtus pennsylvanicus funebris.*

Columbia Valley: *Ursus kluane impiger.*

Dease Lake: *Gulo niediecki.*

Denny Island, Fort McLaughlin: *Sciurus lanuginosus.*

Doyle Island, Gordon Group: *Peromyscus maniculatus doylei.*

Ducks: *Tamiasciurus hudsonicus streatori; Neotoma cinerea columbiana.*

Duncan Island: *Peromyscus maniculatus saxamans.*

Glacier, Selkirk Range: *Glaucomys sabrinus latipes; Synaptomys borealis chapmani.*

Gold (Shuswap) Range: *Marmota caligata okanagana.*

Goose Island Group, northern island: *Peromyscus maniculatus pluvialis.*

Great Glacier, Stikine River: *Clethrionomys gapperi stikinensis.*

Green Mountain, head of Murphy Creek, about 10 miles north of Rossland, West Kootenay District: *Zapus princeps kootenayensis.*

Gribble [Gribbell] Island: *Euarctos americanus kermodei.*

Hells Gate, Liard River: *Microtus cautus.*

Hope, Roab's Ranch: *Lepus americanus cascadensis; Aplodontia californica columbiana.*

Huntington: *Mustela erminea fallenda.*

Indianpoint Creek, 16 miles northeast of Barkersville: *Castor canadensis sagittatus.*

Isaac Lake, Bowron Lake region: *Canis latrans incolatus.*

Itcha Mountains, Chilcotin Plateau, south of Tsacha Lake: *Ochotona princeps septentrionalis; Marmota caligata raceyi.*

Jervis Inlet, head of: *Ursus chelidonias; Ursus kwakiutl.*

Kamloops, basaltic plateau about 30 miles northwest of: *Phenacomys intermedius intermedius; Zapus hudsonius tenellus.*

Kettle River, source of: *Mustela frenata oribasus.*

Kimsquit River, Cornice Creek, near head of Dean Inlet: *Phenacomys intermedius laingi.*

Klappan Creek (third south fork of Stikine River): *Ursus tahltanicus; Ursus crassodon.*

Lac La Hache: *Microtus microcephalus.*

Lake Bennett, head of, site of old Bennett City: *Peromyscus maniculatus algidus.*

Lake Osoyoos, at head of Okanagan River: *Ondatra zibethicus osoyoosensis.*

Level Mountains: *Synaptomys andersoni.*

Liard River: *Microtus stonei; Ovis canadensis liardensis.*

Lonesome Lake, Atnarko River, one of upper forks of Bella Coola: *Glaucomys sabrinus reductus; Ursus atnarko.*

Lulu Island, mouth of Fraser River: *Zapus trinotatus trinotatus.*

Lund, Malaspina Inlet: *Clethrionomys occidentalis caurinus.*

Monashee Divide, Gold Range: *Ochotona princeps cuppes.*

Moore Islands, largest of: *Peromyscus maniculatus maritimus.*

Moose Pass, near Mount Robson: *Ursus canadensis canadensis.*

Mount Baker Range: *Peromyscus maniculatus oreas; Microtus principalis.*

Mount Logan, near: *Ovis cowani.*

Mount Revelstoke, 19 miles northeast of Revelstoke: *Peromyscus maniculatus alpinus.*

Nelson, Kootenay River: *Clethrionomys gapperi saturatus.*

Okanagan: *Marmota flaviventris avara; Glaucomys sabrinus columbiensis.*

Ootsa Lake Post Office, north shore of Ootsa Lake: *Eutamias amoenus septentrionalis.*

Paradise Mine, near Toby Creek, 19 miles west of Invermere, Purcell Range: *Eutamias minimus selkirki.*

Pemberton (Lillooet) Lake: *Ursus pervagor.*

Pine Island, Queen Charlotte Sound: *Peromyscus maniculatus isolatus.*

Ptarmigan Hill, near head of Ashnola River, east side of Cascade Range: *Ochotona princeps fenisex.*

Queen Charlotte Islands.—Cumshewa Inlet, Moresby Island: *Sorex obscurus elassodon.*

Gawi, west coast of Moresby Island: *Lutra canadensis periclyzomae.*

CANADA—Continued

British Columbia—Continued

Graham Island: *Rangifer arcticus dawsoni.*

Massett, Graham Island: *Myotis keenii keenii; Myotis californicus caurinus; Peromycus maniculatus keeni; Euarctos carlottae; Martes caurina nesophila; Mustela erminea haidarum.*

Prevost (Kunghit) Island, Houston Stewart Channel: *Sorex obscurus prevostensis; Peromyscus sitkensis prevostensis.*

Raspberry Creek, about 30 miles southeast of Telegraph Creek: *Tamiasciurus hudsonicus columbiensis.*

Revelstoke, Illecillewaet watershed, Selkirk Range: *Marmota monax petrensis; Rangifer arcticus montanus.*

Ruth Island, Hunter Island complex: *Peromyscus maniculatus rubriventer.*

Saturna Island, Gulf of Georgia: *Peromyscus maniculatus saturatus.*

Sawmill Lake, near Telegraph Creek: *Microtus pennsylvanicus rubidus.*

Selkirk Mountains, upper Columbia River: *Ursus selkirki.*

Shesley: *Putorius microtis.*

Shesley Mountains: *Oreamnos americanus columbiae.*

Shesley River: *Erethizon dorsatum nigrescens.*

Shuswap, Yale District: *Thomomys talpoides incensus.*

Sicamous: *Ochotona princeps brooksi.*

Silver King Mine, summit of Toad Mountain, 4 miles south of Nelson, West Kootenay District: *Thomomys talpoides medius.*

Similkameen Mountains: *Ovis canadensis samilkameenensis.*

Skeena River, mouth of, North Pacific Salmon Cannery: *Peromyscus maniculatus macrorhinus.*

Skeena River, mountains at head of: *Ovis canadensis niger.*

Smythe Island, Bardswell Group: *Sorex obscurus insularis.*

Stevenson (Sixmile) Creek, on Hope-Princeton trail, southwest of Princeton, Cascade Range: *Synaptomys borealis artemisiae.*

Stuart Lake, near headwaters of Fraser River: *Vulpes fulva abietorum; Martes pennanti columbiana; Lutra canadensis evexa.*

Sumas: *Mustela vison energumenos; Mephitis spissigrada*

Table Island, Queen Charlotte Sound: *Peromyscus maniculatus cancrivorus.*

Tatletuey (Tatlatui) Lake, near head of Skeena River: *Ursus stikeenensis.*

Telegraph Creek, Stikine River: *Phenacomys constablei; Zapus princeps saltator.*

Texada Island, Vananda, Georgia Strait: *Sorex obscurus mixtus; Peromyscus maniculatus georgiensis.*

Upper Liard River: *Microtus longicaudus vellerosus.*

Vancouver Island.—No exact locality: *Castor canadensis leucodontus; Phoca vitulina richardii.*

Beaver Creek, 15 miles northwest of Alberni: *Peromyscus maniculatus angustus.*

Black Creek, Comox District: *Sorex palustris brooksi.*

Campbell Lake: *Felis concolor vancouverensis.*

Duncan Station: *Tamiasciurus hudsonicus vancouverensis.*

Forbidden Plateau, about 17 miles west of Comox: *Peromyscus maniculatus interdictus.*

French Creek: *Mustela erminea anguinae.*

Golden Eagle Mine, 20 miles south of Alberni: *Martes caurina vancouverensis.*

Goldstream: *Sorex vagrans vancouverensis.*

Great Central Lake: *Gulo luscus vancouverensis.*

King Solomon's Basin: *Euarctos americanus vancouveri.*

Little Qualicum River, 8 or 9 miles west of Parksville: *Mustela vison evagor.*

Millstone Creek, mouth of, Nanaimo: *Sorex obscurus isolatus.*

Mount Douglas: *Marmota vancouverensis.*

Port Hardy, on Queen Charlotte Strait: *Microtus townsendii laingi.*

Quatsino: *Lutra canadensis vancouverensis.*

Quatsino Sound: *Procyon lotor vancouverensis.*

Tahsis Canal, Nootka Sound: *Canis lupus crassodon.*

Vernon: *Lepus americanus columbiensis.*

Victoria, Beacon Hill Park: *Microtus townsendii tetramerus.*

Wistaria, north side of Ootsa Lake, Coast District: *Canis lupus columbianus.*

Yellowhead (Cowdung) Lake: *Eutamias amoenus ludibundus.*

CANADA—Continued

Labrador

No exact locality: *Hesperomys bairdii; Hesperomys arcticus; Dicrostonyx hudsonius.*

Black Bay, Strait of Belle Isle: *Sorex cinereus miscix; Marmota monax ignava; Microtus chrotorrhinus ravus.*

Hamilton Inlet: *Clethrionomys gapperi proteus; Microtus pennsylvanicus enixus.*

Hamilton River, 5 miles above Grand Falls: *Castor canadensis labradorensis.*

L'Anse au Loup, Strait of Belle Isle: *Synaptomys borealis medioximus; Erethizon dorsatum picinum; Vulpes fulva bangsi.*

Makkovik: *Glaucomys sabrinus makkovikensis.*

Moravian Settlements: *Peromyscus maniculatus maniculatus.*

Nachvak, 30 miles north of: *Rangifer arcticus caboti.*

Nain and Davis Inlet, and Fort Chimo, Quebec: *Rangifer labradorensis.*

Okkak [Okak]: *Ursus (Euarctos) americanus sornborgeri; Thalarctos labradorensis; Martes americana brumalis.*

Red Bay, Strait of Belle Isle: *Sorex palustris labradorensis.*

Red Bay, 15 miles northwest of: *Erethizon epixanthum doani.*

Rigolet, Hamilton Inlet: *Phenacomys ungava crassus; Ondatra zibethicus aquilonius; Zapus hudsonius ladas.*

Manitoba

Manitoba, central and northern, Keewatin, and north and [south] Saskatchewan: *Tarandus rangifer keewatinensis.*

Manitoba and eastern Saskatchewan: *Cervus canadensis manitobensis.*

Bird (Mile 349), Hudson Bay Railway: *Eutamias minimus hudsonius.*

Brandon, 15 miles east of, Sprucewood Forest Reserve: *Alces alces andersoni.*

Echimamish River (near Painted Stone Portage): *Mustela vison lacustris.*

Fort Churchill: *Dicrostonyx groenlandicus richardsoni; Ondatra zibethicus hudsonius.*

Hubbart Point, Hudson Bay, about 75 miles north of Churchill: *Lepus arcticus canus.*

Lake Audy, 2½ miles northwest of, Riding Mountain National Park: *Sorex obscurus soperi.*

Max Lake, Turtle Mountains: *Blarina brevicauda manitobensis.*

Portage la Prairie: *Glaucomys sabrinus canescens.*

Robinson Portage, upper Hayes River, about 35 miles southwest of Oxford Lake: *Microsorex hoyi alnorum.*

Seal and Churchill Rivers, between: *Ovibos moschatus moschatus.*

Swanson Creek, near, Riding Mountain National Park: *Phenacomys ungava soperi.*

Thicket Portage, Mile 165, Hudson Bay Railway: *Synaptomys borealis smithi.*

New Brunswick

No exact locality: *Ondatra zibethicus zibethicus.*

Grand Manan Island, Grand Harbor: *Peromyscus maniculatus argentatus.*

Nepisiquit [Nipisiguit] River: *Castor canadensis acadicus.*

Restigouche River: *Napaeozapus insignis insignis.*

Trousers Lake: *Clethrionomys fuscodorsalis.*

Newfoundland

No exact locality: *Canis lupus beothucus.*

Newfoundland and New York: *Gulo auduboni.*

Bay St. George: *Castor caecator; Vulpes fulva deletrix; Martes atrata; Mustela cicognanii mortigena; Lutra degener.*

Codroy: *Lepus arcticus bangsii; Microtus pennsylvanicus terraenovae; Ondatra obscurus; Lynx canadensis subsolanus; Rangifer caribou terraenovae.*

Northwest Territories

DISTRICT:

Franklin.—Baffin Island, Hantzsch River, east side of Foxe Basin: *Canis lupus manningi.*

Baffin Island, Takuirbing River, near mouth of, Nettilling Lake: *Phoca hispida soperi.*

Banks Island, Cape Kellett: *Canis lupus* ***bernardi.***

Bylot Island, Possession Bay: *Lepus arcticus arcticus.*

Ellesmere Island, no exact locality: *Rangifer pearyi.*

Ellesmere Island, Buchanan Bay: *Lepus arcticus monstrabilis.*

Melville Island: *Canis lupus arctos; Ovibos moschatus melvillensis.*

Melville Peninsula, Malugsitaq: *Mustela arctica labiata.*

CANADA—Continued

Northwest Territories—Continued

Melville Peninsula, Five Hawser Bay, Lyon Inlet: *Citellus parryii parryii.*

Prince Patrick Island, near Cherie Bay: *Lepus arcticus hubbardi.*

Victoria Island, De Haven Point: *Dicrostonyx groenlandicus kilangmiutak.*

Keewatin.—Cape Eskimo (Eskimo Point), barren grounds about 50 miles south of, near mouth of Thlewiaza River: *Microtus pennsylvanicus aphorodemus.*

Schultz Lake, head of: *Canis lupus hudsonicus.*

Southampton Island, Coral Inlet, South Bay: *Mustela erminea semplei.*

Wager River, head of: *Ovibos moschatus niphoecus.*

Mackenzie.—Anderson River, 50 miles below Fort Anderson: *Ursus macfarlani.*

Cape Barrow, Coronation Gulf: *Lepus arcticus andersoni.*

Cockburn Point, Dolphin and Union Strait: *Phoca hispida beaufortiana.*

Dease River, east branch of, near Great Bear Lake: *Ursus andersoni.*

Fort Anderson, near mouth of Anderson River: *Lepus americanus macfarlani; Microtus oeconomus macfarlani.*

Fort Enterprise: *Rangifer arcticus arcticus.*

Fort Franklin, Great Bear Lake: *Synaptomys borealis borealis; Mustela erminea richardsonii.*

Fort Good Hope: *Citellus kennicottii.*

Fort Liard: *Sorex sphagnicola; Eutamias minimus borealis.*

Fort Resolution, 50 miles southwest of: *Bison bison athabascae.*

Fort Simpson: *Tamiasciurus hudsonicus preblei; Peromyscus maniculatus borealis; Putorius arcticus imperii.*

Fort Smith, Slave River: *Clethrionomys gapperi athabascae; Phenacomys ungava mackenzii.*

Great Slave Lake: *Ovibos moschatus mackenzianus.*

Hood River, about 8 miles from mouth of, near first cascade, Arctic Sound, on west side of Bathurst Inlet, northeast of Coronation Gulf: *Ursus richardsoni.*

Innanuit, west of Kater Point, Bathurst Inlet: *Canis lupus mackenzii.*

Kidluit Bay, northeast corner of Richards Island, lat. 69° 31′ N., long. 133° 49′ W.: *Microtus pennsylvanicus arcticus.*

Little Keele River, near headwaters of, 82 miles west of Mackenzie River on Canol Road: *Microtus miurus andersoni.*

Lower Mackenzie River District, toward Arctic Ocean: *Mustela boria.*

Mackenzie River Delta, west (Aklavik) branch: *Ursus internationalis russelli.*

McTavish Bay, near Great Bear Lake (on canoe route from Lake Hardisty): *Lutra canadensis preblei.*

Perry River, lat. 67° 34′ N., long. 102° 07′ W.: *Clethrionomys rutilus washburni.*

Point Lake: *Lemmus trimucronatus trimucronatus.*

Prairie Creek, near mouth of, South Nahanni River: *Euarctos hunteri.*

Rendezvous Lake, northeast of old Fort Anderson: *Ursus inopinatus.*

Simpson, near mouth of Liard River: *Canis lupus occidentalis.*

Trout Rock, near Fort Rae, Great Slave Lake: *Synaptomys bullatus.*

Tuktoyaktok (Tuktak), about 20 miles southwest of Toker Point: *Sorex cinereus ugyunak.*

Nova Scotia

No exact locality: *Zapus hudsonius acadicus.*

Bear River, 15 miles back of: *Lynx rufus gigas.*

Cape Breton Island: Frizzleton, Inverness County: *Glaucomys sabrinus gouldi.*

Digby, Digby County: *Sorex palustris gloveralleni; Lepus americanus struthopus; Microtus pennsylvanicus acadicus; Vulpes fulva rubricosa.*

Halifax, Halifax County: *Sorex cinereus acadicus; Myotis keenii septentrionalis.*

James River, Antigonish County: *Sorex fumeus umbrosus; Peromyscus maniculatus abietorum.*

Wolfville, Kings County; *Sorex arcticus maritimensis; Blarina brevicauda pallida; Condylura cristata nigra; Peromyscus leucopus caudatus; Clethrionomys gapperi rufescens; Clethrionomys gapperi pallescens.*

Ontario

No exact locality: *Alces columbae.*

Fort Severn [Severn Settlement, now Severn], mouth of Severn River, southwest side of Hudson Bay: *Sorex cinereus cinereus; Sorex arcticus arcticus; Lepus americanus americanus.*

CANADA—Continued

Ontario—Continued

Kapuskasing, Kapuskasing River, about 64 miles ~~east~~ west of Cochrane; *Clethrionomys gapperi hudsonius.*

Michipicoten Island, Lake Superior: *Lutra destructor.*

Montreal River, mouth of, eastern end Lake Superior: *Eutamias minimus neglectus.*

Pancake (Batchawana) Bay, Lake Superior, Algoma District, about 40 miles northwest of Sault Ste. Marie: *Zapus hudsonius ontarioensis.*

Penetanguishene, Georgia Bay: *Tamias striatus lysteri.*

Peninsula Harbor, Lake Superior: *Peromyscus canadensis umbrinus; Napaeozapus insignis abietorum.*

Port Arthur, near, McIntyre Township: *Lynx rufus superiorensis.*

Severn River: *Tamiasciurus hudsonicus hudsonicus; Glaucomys sabrinus sabrinus.*

Smoke Lake, Algonquin Park: *Napaeozapus insignis algonquinensis.*

York (Toronto), between, and Lake Simcoe: *Sorex brevicauda talpoides; Sciurus carolinensis leucotis; Clethrionomys gapperi gapperi.*

Quebec

No exact locality: *Erethizon dorsatum dorsatum; Martes pennanti pennanti; Mustela vison vison; Mephitis mephitis mephitis; Lutra canadensis canadensis; Lynx canadensis canadensis; Cervus canadensis canadensis; Rangifer caribou caribou.*

Anse-à-Wolfe: *Myotis quebecensis.*

Anticosti Island, Fox Bay, Gulf of St. Lawrence: *Peromyscus maniculatus anticostiensis.*

Berry Mountain Camp, near junction of Berry Mountain Brook and Grand Cascapédia River, Matane County: *Glaucomys sabrinus goodwini; Clethrionomys gapperi gaspeanus.*

Berry Mountain Brook, Grand Cascapédia River, Shickshock Mountains, Gaspé County: *Napaeozapus insignis gaspensis.*

Fort Chimo, on eastern bank of Koksoak River, lat. 58° N., long. 68° W., Ungava District: *Sorex palustris turneri; Lepus arcticus labradorius; Synaptomys borealis innuitus; Clethrionomys gapperi ungava; Phenacomys latimanus; Phenacomys ungava ungava; Microtus pennsylvanicus labradorius; Canis lupus labradorius; Alopex lagopus ungava; Lutra canadensis chimo.*

Godbout, Saguenay County: *Phenacomys celatus.*

Godbout, 35 miles north of: *Canis tundrarum ungavensis.*

Grindstone Island, Pleasant Bay, Magdalen Islands: *Peromyscus maniculatus eremus.*

Kelly's Camp, Berry Mountain Brook, near head of Grand Cascapédia River, Gaspé County: *Blarina brevicauda angusta.*

Killinek, near, Ungava Bay: *Thalarctos maritimus ungavensis.*

Lac Marchant, Moisie Bay, near, Saguenay County: *Tamiasciurus hudsonicus laurentianus.*

Lake Edward: *Synaptomys fatuus; Microtus pennsylvanicus fontigenus.*

Lake Waswanipi, Abitibi County: *Tamiasciurus hudsonicus ungavensis.*

Lower Seal Lake, about 90 miles east of Richmond Gulf, Hudson Bay: *Phoca vitulina mellonae.*

Mistassini Post, Mistassini Lake, Mistassini District: *Mustela vison lowii.*

Mount Albert, Gaspé Peninsula: *Sorex gaspensis.*

Percé, Gaspé County: *Marmota monax johnsoni.*

Pigou River, Gulf of St. Lawrence, Saguenay County: *Peromyscus maniculatus plumbeus.*

Quebec [city]: *Marmota monax canadensis; Zapus hudsonius canadensis; Canis lupus lycaon.*

St. Félicien, Lake St. John County: *Tamias striatus quebecensis.*

Trout Lake, near Moisie Bay, Gulf of St. Lawrence, Saguenay County: *Napaeozapus insignis saguenayensis.*

Saskatchewan

No exact locality: *Sorex richardsonii.*

Carlton House (now Carlton), North Saskatchewan River: *Lepus townsendii campanius; Citellus richardsonii richardsonii; Citellus tridecemlineatus hoodii; Citellus franklinii; Thomomys talpoides talpoides; Mustela frenata longicauda.*

Cumberland House: *Ondatra zibethicus albus; Canis lupus knightii; Martes americana abieticola.*

CANADA—Continued

Saskatchewan—Continued

Osler: *Mustela rixosa rixosa.*

Plains of Saskatchewan: *Mephitis mephitis hudsonica.*

Wingard, near Carlton House: *Zapus princeps minor.*

Yukon

Alaska-Yukon boundary, about 50 miles south of Arctic coast: *Ursus internationalis internationalis.*

Camp Davidson, Yukon River: *Glaucomys sabrinus yukonensis.*

Champagne Landing: *Ursus canadensis sagittalis.*

Caribou Crossing, between Lake Bennett and Lake Tagish: *Lepus saliens.*

Dawson: *Ovis fannini.*

Donjek River: *Ursus pallasi.*

Finlayson River, a northern source of Liard River: *Clethrionomys rutilus dawsoni.*

Ketza Divide, Pelly Mountains: *Ursus pellyensis.*

Kletson Creek, a tributary of White River: *Rangifer mcguirei.*

Kluane, 6 miles southwest of: *Microtus pennsylvanicus alcorni.*

Lake Laberge: *Eutamias minimus caniceps.*

Lake Marsh: *Ondatra zibethicus spatulatus.*

McConnell River: *Ursus kluane kluane.*

Ogilvie Mountains, north of Dawson: *Rangifer ogilvyensis.*

Ross River: *Ursus pulchellus pulchellus.*

Saint Elias Range, north slope near Tepee Lake at head of Harris Creek: *Microtus miurus cantator.*

Sheldon Mountain, Canol Road, Mile 222: *Euarctos americanus randi.*

South Fork of Macmillan River, mountains south of: *Rangifer montanus selousi.*

Upper Liard River, near British Columbia boundary: *Ursus oribasus.*

Upper Macmillan River: *Ursus crassus.*

UNITED STATES

No exact locality, "Carolina": *Sciurus carolinensis carolinensis.*

Eastern United States: *Sorex personatus; Lasionycteris noctivagans; Mustela erminea cicognanii.*

From Alleghenies to Connecticut: *Mephitis dentata.*

Georgia, probably: *Pipistrellus subflavus subflavus.*

Lower parts of Ohio River: *Corynorhinus rafinesquii rafinesquii.*

Mississippi Valley: Probably between southern Illinois and central Tennessee: *Sciurus niger rufiventer.*

Missouri Territory: *Sciurus niger.*

New England, coast of: *Eschrichtius gibbosus; Megaptera novaeangliae; Megaptera nodosa.*

Pacific Coast, from Puget Sound to Cascade Mountains: *Procyon lotor pacificus.*

Plains and highlands of Missouri River: *Antilocapra americana americana.*

Rocky Mountains: *Perognathus latirostris.*

Southern United States: *Procyon lotor flavidus.*

Upper Missouri River: *Cynomys ludovicianus ludovicianus; Spilogale interrupta.*

Alabama

Western Alabama: *Sylvilagus aquaticus aquaticus.*

COUNTIES:

- Autauga.—Autaugaville: *Scalopus aquaticus howelli; Mustela frenata olivacea.*
- Baldwin.—Point Clear, Mobile Bay: *Geomys pinctis mobilensis.*
- Conecuh.—Castleberry: *Procyon lotor varius.*
- Hale.—Greensboro: *Spilogale ringens.*
- Houston.—Dothan: *Glaucomys volans saturatus.*
- Jackson.—Woodville: *Peromyscus gossypinus megacephalus; Sigmodon hispidus komareki.*

Alaska

Mainland, no exact locality: *Vulpes lagopus kenaiensis.*

Probably between Cross Sound and Alsek River delta: *Ursus townsendi.*

Admiralty Island, Alexander Archipelago.—No exact locality: *Ursus insularis; Ursus eulophus; Ursus mirabilis.*

- Hawk Inlet, near: *Ursus neglectus.*
- Mole Harbor: *Mustela erminea salva.*
- Pleasant Bay: *Castor canadensis phaeus.*
- Pybus Bay: *Ursus shirasi.*
- Windfall Harbor: *Microtus pennsylvanicus admiraltiae; Mustela vison nesolestes.*

Alaska Peninsula.—Becharof Lake: *Ondatra zibethicus zalophus.*

UNITED STATES—Continued

Alaska—Continued

- Pavlof Bay: *Ursus gyas.*
- Popof Island, opposite: *Rangifer arcticus granti.*
- Portage Bay, opposite Port Muller: *Erethizon dorsatum myops; Ursus merriami.*
- Stepovak Bay: *Lepus othus poadromus.*
- Stevena Flats, near Port Moller: *Citellus stonei.*

Aleutian Islands.—No exact locality: *Vulpes argenteus sitkaensis.*

- Amak Island, Bering Sea: *Microtus oeconomus amakensis.*
- Strait west of Adakh (Adak): *Phocoenoides dalli.*
- Umnak Island: *Dicrostonyx groenlandicus stevensoni.*
- Unalaska Island, no exact locality: *Sorex hydrodromus.*
- Unalaska: *Dicrostonyx groenlandicus unalascensis; Microtus oeconomus unalascensis.*

Andreafski, about 70 miles above delta of Yukon River: *Vulpes fulva alascensis.*

Baranof Island, Alexander Archipelago, Saook Bay: *Mustela erminea initis.*

Bartlett Bay, east side of Glacier Bay: *Ursus origilos.*

Bering Strait, American side, no exact locality: *Dicrostonyx groenlandicus rubricatus.*

Berners Bay, east side of Lynn Canal: *Ursus caurinus.*

Big Punuk Island; near St. Lawrence Island, Bering Sea: *Microtus oeconomus punukensis.*

Bristol Bay, near: *Marmota caligata caligata.*

Cape Lisburne: *Citellus beringensis.*

Cape Yakataga: *Clethrionomys rutilus watsoni.*

Charlie Creek, Yukon River, about 50 miles above Circle: *Lemmus yukonensis; Microtus operarius endoecus.*

Chichagof Island, Alexander Archipelago, Freshwater Bay: *Ursus eltonclarki.*

Cook Inlet Region.—Bear Creek, head of, in mountains near Hope City, Turnagain Arm: *Microtus miurus miurus.*

- Beluga River: *Castor canadensis belugae.*
- Chinitna Bay: *Ursus kidderi kidderi.*
- Hope: *Tamiasciurus hudsonicus kenaiensis.*
- Knik Arm, head of: *Ursus eximius.*
- Tyonek: *Microsorex hoyi eximius.*

Copper River, mountains at mouth of, opposite Kayak Island: *Oreamnos kennedyi.*

Coronation Island, Alexander Archipelago, Egg Harbor: *Microtus coronarius.*

Dall Island, Alexander Archipelago, Rocky Bay, now Bobs Bay: *Euarctos americanus pugnax.*

Forrester Island, Alexander Archipelago, *Peromyscus sitkensis oceanicus.*

Fort Yukon: *Citellus osgoodi; Martes americana actuosa; Mustela vison ingens.*

Fort Yukon, mountains of, probably Tanana Hills: *Ovis dalli dalli.*

Fortymile Creek: *Marmota monax ochracea.*

Glacier, White Pass: *Tamiasciurus hudsonicus petulans.*

Glacier Bay: *Marmota caligata vigilis; Clethrionomys rutilus glacialis.*

Glacier Mountain, Tanana Mountains: *Ursus phaeonyx.*

Golofnin Bay, south side of Seward Peninsula: *Ursus innuitus.*

Hall Island, Bering Sea: *Microtus abbreviatus abbreviatus; Alopex hallensis.*

Hawkins Island, Canoe Passage, Prince William Sound: *Clethrionomys rutilus insularis.*

Helm Bay, Cleveland Peninsula: *Glaucomys sabrinus zaphaeus.*

Hinchinbrook Island, Nuchek Bay, head of, Prince William Sound: *Ursus nuchek.*

Icy Cape, about 35 miles south of: *Odobenus divergens.*

Italio River: *Ursus orgiloides.*

Juneau: *Mustela erminea alascensis.*

Kakhtul River, near junction with Malchatna River: *Lemmus trimucronatus minusculus.*

Karogar River, Point Barrow: *Alopex lagopus innuitus.*

Kenai Peninsula.—No exact locality: *Vulpes fulva kenaiensis; Martes americana kenaiensis; Mustela vison melampeplus; Rangifer arcticus stonei.*

- Cape Elizabeth: *Ursus kenaiensis.*
- Homer: *Euarctos americanus perniger.*
- Kachemak [Katschemak] Bay: *Canis lupus alces; Gulo katschemakensis.*
- Kasilof Lake: *Lepus niediecki; Ursus alexandrae.*
- Sheep Creek, head of: *Ovis dalli kenaiensis.*
- Tustumena Lake, north side of: *Alces alces gigas.*

UNITED STATES—Continued

Alaska—Continued

Kodiak Island.—No exact locality: *Citellus kodiacensis; Microtus oeconomus kadiacensis; Vulpes fulva harrimani; Ursus middendorffi; Mustela erminea kadiacensis.*

Uyak Bay: *Lutra canadensis kodiacensis.*

Kupreanof Island, Alexander Archipelago.—Duncan Canal, head of: *Canis lupus ligoni.*

Kake village, 26 miles south of, southern end of Keku Straits: *Tamiasciurus hudsonicus picatus.*

Kutuk [Pish] River, tributary to Alatna River, Endicott Mountains: *Microtus miurus muriei.*

Lakina River, south slope of Wrangell Range: *Ursus cressonus.*

Marten Arm, Boca de Quadra: *Clethrionomys gapperi phaeus.*

Meade River, near Point Barrow: *Rangifer excelsifrons.*

Montague Island, Prince William Sound.—No exact locality; *Marmota caligata sheldoni; Ursus sheldoni.*

East side of: *Microtus oeconomus elymocetes.*

Zaikof Bay: *Lutra canadensis optiva.*

Mount Saint Elias: *Ursus glacilis.*

Norton Sound Region.—St. Michael: *Sorex cinereus hollisteri; Sorex tundrensis; Lepus othus othus; Dicrostonyx nelsoni; Clethrionomys alascensis; Microtus oeconomus operarius.*

Shaktolik River: *Ursus kidderi tundrensis.*

Unalakleet: *Lutra canadensis yukonensis.*

Nulato, Yukon River: *Synaptomys borealis dalli.*

Nulato River: *Lepus americanus dalli.*

Nunivak Island: *Lemmus trimucronatus harroldi.*

Nushagak: *Citellus parryii ablusus.*

Orca, Prince William Sound: *Clethrionomys rutilus orca.*

Point Barrow: *Citellus parryii barrowensis; Dicrostonyx hudsonius alascensis; Lemmus trimucronatus alascensis; Canis lupus tundrarum; Mustela erminea arctica; Mustela rixosa eskimo.*

Point Gustavus, on east side of entrance to Glacier Bay: *Sorex glacialis; Sorex alaskanus.*

Point Lay, Arctic Coast: *Marmota caligata broweri; Microtus oeconomus gilmorei.*

Pribilof Islands.—No exact locality: *Callorhinus alascanus.*

St. George Island: *Lemmus nigripes; Alopex pribilofensis.*

St. Paul Island: *Sorex pribilofensis; Phoca richardii pribilofensis.*

Prince of Wales Island, Alexander Archipelago.—Hollis, Kasaan Bay: *Peromyscus maniculatus hylaeus.*

Kasaan Bay: *Mustela erminea celenda; Lutra mira.*

Lake Bay: *Glaucomys sabrinus griseifrons.*

Shakan: *Microtus longicaudus littoralis.*

Revillagigedo Island, Alexander Archipelago, Loring: *Clethrionomys gapperi solus.*

Saint Elias Alps, near Yakutat Bay: *Euarctos americanus emmonsii.*

St. Lawrence Island, Bering Sea.—No exact locality: *Dicrostonyx exsul; Microtus oeconomus innuitus.*

Iviktook Lagoon, about 35 miles northwest of Northeast Cape: *Citellus parryii lyratus.*

Sevoonga, 2 miles east of North Cape: *Sorex jacksoni; Clethrionomys albiventer.*

St. Matthew Island, Bering Sea: *Microtus abbreviatus fisheri.*

Shumagin Islands.—No exact locality: *Balaenoptera velifera copei.*

Nagai Island: *Citellus parryii nebulicola; Lutra canadensis extera.*

Popof Island: *Sorex obscurus shumaginensis; Microtus oeconomus popofensis.*

Sitka: *Myotis lucifugus alascensis; Peromyscus sitkensis sitkensis; Microtus oeconomus sitkensis; Ursus sitkensis; Odocoileus hemionus sitkensis.*

Suemez Island, Alexander Archipelago, Santa Cruz: *Mustela erminea seclusa.*

Susitna River, region of Mount McKinley: *Canis lupus pambasileus; Gulo hylaeus.*

Talkeetna Mountains, east slope of, near headwaters of Oshetna or Black River: *Ursus holzworthi.*

Tanana River, near head of, about 200 miles south of Fort Yukon: *Ochotona collaris.*

Toklat River, Alaska Range, near Mount McKinley: *Microtus miurus oreas; Ursus toklat.*

Tolugak Lake, Brooks Range: *Microtus miurus paneaki.*

Unalaklik River: *Ursus alascensis.*

Wainwright Inlet: *Lynx canadensis mollipilosus.*

UNITED STATES—Continued

Alaska—Continued

Warren Island, east side of, Alexander Archipelago: *Sorex obscurus malitiosus.*

Wrangell, Alexander Archipelago: *Sorex obscurus longicauda; Synaptomys borealis wrangeli; Clethrionomys gapperi wrangeli.*

Yakutat: *Sorex cinereus streatori; Ursus nortoni.*

Yakutat Bay: *Sorex obscurus alascensis; Microtus oeconomus yakutatensis; Zapus hudsonius alascensis; Ursus dalli.*

Yerrick Creek, 21 miles west and 4 miles north of Tok Junction: *Microtus pennsylvanicus tananaensis.*

Arizona

COUNTY:

Apache.—Black River, head of, White Mountains: *Cervus merriami.*

Black River, west fork of: *Thomomys bottae nasutus.*

Escudilla Mountains, east side of: *Ursus arizonae.*

Fort Defiance, Navajo country near: *Ursus texensis navaho.*

Marsh Lake, White Mountains: *Citellus tridecemlineatus monticola.*

Springerville: *Microtus montanus arizonensis.*

Wheatfields Creek, 27 miles east of Chin Lee [Chinle], Tunitcha Mountains: *Thomomys bottae peramplus.*

White Mountains, Little Colorado River: *Clethrionomys gapperi arizonensis.*

White Mountains, south of Mount Ord: *Sylvilagus nuttallii pinetis.*

Cochise.—Cave Creek, Chiricahua Mountains: *Sciurus chiricahuae.*

Dos Cabezos: *Dipodomys spectabilis spectabilis.*

Fairbank: *Lepus californicus eremicus; Dipodomys merriami olivaceus; Peromyscus leucopus arizonae.*

Fly Park, Chiricahua Mountains: *Thomomys bottae collinus.*

Hereford, 7 miles west of: *Baiomys taylori ater.*

Huachuca Mountains: *Sylvilagus floridanus holzneri; Sciurus arizonensis huachuca; Thomomys umbrinus intermedius.*

Huachuca Mountains, Peterson's Ranch (Sylvania), 2 miles north of Sunnyside. *Sigmodon ochrognathus montanus.*

Pinery Canyon, Chiricahua Mountains: *Thomomys umbrinus chiricahuae.*

Point of Mountain, near Willcox: *Cynomys ludovicianus arizonensis.*

Rock Creek, Chiricahua Mountains: *Reithrodontomys megalotis arizonensis.*

San Bernardino Ranch: *Perognathus conditi.*

San Pedro River, Mexican boundary line: *Taxidea taxus apache.*

Willcox: *Citellus spilosoma canescens; Thomomys bottae extenuatus.*

Coconino.—Baker Butte (north of Gila-Coconino County line), Mogollon Mountains [Mesa]: *Microtus mexicanus mogollonensis.*

Black Tank, Little Colorado Desert: *Hesperomys megalotis.*

Black Tank lava beds, northeast of San Francisco Mountain: *Onychomys leucogaster fuliginosus.*

Bright Angel Creek, Kaibab Plateau: *Sciurus kaibabensis; Castor canadensis repentinus.*

Bright Angel Trail, south side of Grand Canyon: *Peromyscus crinitus peridoneus.*

Cameron, 2 miles south of: *Perognathus amplus ammodytes.*

De Motte Park, Kaibab Plateau: *Thomomys talpoides kaibabensis.*

Echo Cliffs, Painted Desert: *Citellus leucurus cinnamomeus; Dipodomys ordii longipes.*

Grand Canyon of Colorado, north of San Francisco Mountain: *Spilogale gracilis gracilis.*

Greenland Spring, Bright Angel Creek, Kaibab Plateau, Grand Canyon National Park: *Microtus longicaudus baileyi.*

House Rock Valley, 6 miles west of Colorado River Bridge: *Dipodomys microps leucotis.*

Jacob's Pools, House Rock Valley: *Thomomys bottae absonus.*

Jacob's Pools, House Rock Valley, 10 miles south of: *Perognathus longimembris arizonensis.*

Little Colorado River, Painted Desert: *Thomomys latirostris.*

Moccasin Spring, north of Colorado River: *Lynx rufus baileyi.*

UNITED STATES—Continued

Arizona—Continued

Powell Plateau, Grand Canyon National Park: *Felis concolor kaibabensis.*

Prospect Valley, lower end of, Grand Canyon, Hualpai Indian Reservation: *Citellus leucurus tersus; Thomomys bottae muralis; Onychomys leucogaster capitulatus.*

Quaking Asp Settlement, between Stoneman Lake and Mormon Lake: *Tamiasciurus hudsonicus mogollonensis.*

Rainbow Lodge, plain 5 miles southeast of, near Navajo Mountain: *Thomomys bottae alexandrae.*

Ryan, Kaibab National Forest: *Neotoma lepida monstrabilis.*

San Francisco Mountain: *Sorex vagrans monticola; Eutamias cinereicollis cinereicollis; Sciurus aberti aberti; Thomomys bottae fulvus; Perognathus penicillatus penicillatus; Peromyscus maniculatus rufinus; Neotoma mexicana pinetorum.*

San Francisco Mountain, cedar belt northeast of: *Citellus spilosoma obsidianus; Perognathus flavus fuliginosus.*

San Francisco Mountain, little spring, at north base of: *Myotis subulatus melanorhinus; Citellus lateralis arizonensis; Microtus longicaudus alticola; Mephitis mephitis estor.*

San Francisco Mountain, pine plateau at north foot of: *Citellus spilosoma pratensis.*

Swamp Point, 18½ miles northwestward of Bright Angel Point, north rim of Grand Canyon: *Thomomys bottae boreorarius.*

Tanner Tank, Painted Desert: *Neotoma lepida devia.*

Tenebito [Dinnebito] Wash, Painted Desert: *Citellus spilosoma cryptospilotus.*

Winona: *Perognathus apache cleomophila.*

Winona, 5 miles northeast of: *Dipodomys ordii cleomophila.*

Wupatki Ruins, 2.6 miles west of, Wupatki National Monument, about 27 miles northeast of Flagstaff: *Perognathus amplus cineris; Perognathus intermedius crinitus.*

Graham.—Camp Grant: *Onychomys torridus torridus.*

Graham (Pinaleno) Mountains: *Tamiasciurus hudsonicus grahamensis; Thomomys bottae grahamensis; Microtus longicaudus leucophaeus.*

Marijilda Canyon, Graham Mountains: *Sorex melanogenys.*

Safford: *Sigmodon hispidus confinis.*

Greenlee.—Cosper Ranch, Blue River, about 12 miles south of Blue: *Bassariscus astutus arizonensis; Conepatus mesoleucus venaticus.*

Prieto Plateau, Blue Range: *Eutamias minimus arizonensis.*

Whorton Creek, on south slope of White Mountains, a few miles west of Blue: *Ursus apache.*

Maricopa.—Gila Bend, 10 miles south of, and about 2 miles north of Black Gap: *Thomomys bottae aridicola; Neotoma lepida harteri.*

Hassayampa River, bottomland along, 2 miles below Wickenberg: *Thomomys bottae patulus.*

New River, north of Phoenix: *Dipodomys merriami merriami.*

Phoenix: *Thomomys bottae cervinus.*

Tempe: *Citellus tereticaudus arizonae.*

Mohave.—Beal's Springs, 2 miles from Kingman: *Sylvilagus audubonii arizonae.*

Beaverdam Creek, Littlefield (Beaverdam): *Thomomys bottae virgineus.*

Big Sandy River, near Owen: *Thomomys bottae desitus.*

Dolans Spring, 12 miles northwest of Chloride: *Citellus tereticaudus neglectus.*

Fort Mohave: *Nyctinomus mohavensis.*

Hackberry: *Perognathus amplus pergracilis.*

Hualpai Mountains: *Neotoma stephensi stephensi.*

Hualpai Peak, Hualpai Mountains: *Thomomys bottae hualpaiensis; Microtus mexicanus hualpaiensis.*

Kanab Wash, Kaibab Indian Reservation: *Dipodomys ordii cupidineus.*

Mount Trumbull: *Perognathus parvus trumbullensis.*

Mount Trumbull, 3 miles south of Nixon Spring: *Thomomys bottae trumbullensis.*

Mud (Muddy) Spring, Detrital Valley: *Thomomys bottae desertorum; Perognathus intermedius intermedius.*

Old Searchlight Ferry, Colorado River, about 40 miles northwest of Kingman: *Thomomys suboles.*

UNITED STATES—Continued

Arizona—Continued

Toroweap Valley, about ½ mile east of Vulcan's Throne: *Dipodomys merriami vulcani.*

Virgin River, sand flat along, 7 miles above Bunkerville: *Perognathus penicillatus sobrinus.*

Wolf Hole, 20 miles south of, Shivwits Plateau: *Thomomys bottae nicholi.*

Wolf Hole, 6 miles north of, about 30 miles south of St. George, Utah: *Dipodomys microps celsus.*

Navajo—Cibecue, near: *Felis onca arizonensis.*

Keams Canyon, Painted Desert: *Corynorhinus rafinesquii pallescens; Eutamias quadrivittatus hopiensis; Perognathus apache apache; Neotoma stephensi relicta; Neotoma cinerea arizonae.*

Moki Pueblos: *Onychomys melanophrys pallescens.*

Oraibi, Hopi Indian Reservation: *Perognathus flavus hopiensis.*

Winslow: *Peromyscus leucopus ochraceus.*

Pima.—Agua Dulce Mountains, 9 miles east of Papago Well: *Neotoma lepida auripila.*

Black Mountain, 10 miles south of Tucson: *Perognathus intermedius nigrimontis; Peromyscus eremicus pullus.*

Coyote (Quinland) Mountains, 40 miles west-southwest of Tucson: *Thomomys bottae pusillus.*

Fort Lowell, near Tucson: *Neotoma albigula albigula; Mephitis macroura milleri.*

Fort Lowell, 4 miles east, Bullock's Ranch: *Sigmodon hispidus cienegae.*

La Osa, Altar Valley: *Thomomys bottae modicus.*

Old Parker Ranch, 4 miles west of Greaterville, Santa Rita Mountains: *Thomomys umbrinus proximus.*

Papago Well, 7 miles east of, Growler Valley: *Thomomys bottae growlerensis.*

Pass between Santa Catalina and Rincon Mountains, 25 miles east-northeast of Tucson: *Thomomys bottae parvulus.*

Quitobaquito: *Canis latrans mearnsi.*

Rillito, Southern Pacific Railroad: *Lepus alleni alleni.*

Santa Catalina Mountains: *Neotoma mexicana bullata.*

Santa Rita Range Reserve, 35 miles south of Tucson: *Perognathus amplus taylori.*

Sells, 5 miles northwest of: *Thomomys bottae comobabiensis.*

Soldier Camp, near, Santa Catalina Mountains: *Sciurus arizonensis catalinae.*

Spud Rock Ranger Station, 25 miles east of Tucson, Rincon Mountains: *Thomomys bottae hueyi.*

Summerhaven, Santa Catalina Mountains: *Thomomys bottae catalinae.*

Pinal.—No exact locality: *Urocyon cinereoargenteus scottii.*

Casa Grande, 11 miles west of: *Perognathus longimembris pimensis.*

Mammoth, San Pedro River: *Thomomys bottae alienus.*

Oak Flat, 5 miles east of Superior, Pinal Mountains: *Thomomys bottae pinalensis.*

Oracle: *Citellus spilosoma macrospilotus.*

Santa Cruz.—Calabasas: *Sylvilagus arizonae major; Dipodomys spectabilis perblandus.*

Camp Crittenden, Sonoita Creek, between Santa Rita and Patagonia Mountains: *Odocoileus virginianus couesi.*

Madera Canyon, Santa Rita Mountains: *Thomomys umbrinus burti.*

Peña Blanca Spring, Pajarito (Tumacacori) Mountains: *Thomomys umbrinus quercinus.*

Santa Cruz Valley: *Citellus harrisii harrisii.*

Yavapai.—Congress Junction: *Perognathus amplus jacksoni.*

Fort (Camp) Verde: *Thomomys bottae mutabilis; Perognathus amplus amplus; Perognathus intermedius umbrosus; Dipodomys ordii chapmani; Sigmodon hispidus arizonae; Ondatra zibethicus pallidus; Spilogale gracilis arizonae.*

Fort Whipple, near Prescott: *Sciurus arizonensis arizonensis; Perognathus flavus bimaculatus; Sigmodon hispidus jacksoni; Erethizon dorsatum couesi.*

Montezuma Well, Beaver Creek: *Lutra canadensis sonora.*

San Francisco Forest: *Mustela frenata arizonensis.*

UNITED STATES—Continued

Arizona—Continued

Yarnell, 6 miles north of, Peoples Valley: *Thomomys bottae operosus.*

Yuma.—Castle Dome, at base Castle Dome Peak: *Perognathus baileyi domensis.*

Castle Dome Mountains, Kofa Game Refuge: *Taxidea taxus hallorani.*

Colorado River at Mexican boundary monument No. 204: *Onychomys torridus perpallidus.*

Ehrenberg: *Thomomys bottae chrysonotus.*

Gadsden, 4 miles south of: *Ondatra zibethicus bernardi.*

Gila Mountains, between Tinajas Altas and Mexican boundary: *Ovis canadensis gaillardi.*

Harquahala Mountains: *Thomomys bottae subsimilis.*

Lower Colorado River, 12 miles south of Yuma: *Felis concolor browni.*

Parker: *Thomomys fulvus flavidus; Sigmodon hispidus plenus.*

Ranegras Plain, 10 miles west of Hope: *Thomomys harquahalae.*

Tinajas Altas, Gila Mountains: *Citellus harrisii saxicola; Perognathus intermedius phasma; Peromyscus crinitus disparilis; Neotoma albigula mearnsi; Neotoma lepida flava; Bassariscus astutus yumanensis.*

Tinajas Altas Mountains, 7 miles south of Raven Butte: *Thomomys bottae depauperatus.*

Tule Tanks, Tule Desert, 2 miles south of, near Mexican boundary: *Thomomys bottae phasma; Vulpes macrotis arizonensis.*

Tule Well, Tule Desert between Cabeza Prieta Mountains and Tule Mountains: *Dipodomys merriami regillus.*

Wellton: *Perognathus amplus rotundus.*

Yuma: *Perognathus longimembris bombycinus.*

Arkansas

No exact locality: *Felis pardalis albescens.*

County:

Pike.—Delight: *Scalopus aquaticus pulcher; Peromyscus nuttalli flammeus.*

Washington.—Winslow, 3 miles south of: *Peromyscus maniculatus ozarkiarum.*

California

No exact locality: *Nyctinomus brasiliensis californicus; Nyctinomus macrotis nevadensis; Erethizon dorsatum epixanthum; Odocoileus punctulatus.*

No exact locality, probably some part of California: *Lasiurus borealis teliotis.*

Coast of California: *Grampus rectipinna.*

North Pacific Ocean, near San Francisco: *Lagenorhynchus obliquidens.*

Northern California, no exact locality: *Tamiasciurus douglasii mollipilosus.*

Sacramento River, probably between Colusa and Sacramento: *Ursus colusus.*

San Francisco Bay, rocks in vicinity of: *Zalophus californianus.*

Sierra Nevada, no exact locality: *Euarctos americanus californiensis.*

County:

Alameda.—Alameda Island: *Scapanus latimanus parvus.*

Berkeley: *Perognathus californicus californicus; Dipodomys heermanni berkeleyensis.*

Melrose Marsh: *Microtus californicus paludicola.*

Alpine.—Hope Valley: *Lepus campestris sierrae.*

Amador.—Carbondale: *Perodipus streatori; Neotoma fuscipes streatori.*

Calaveras.—Calaveras River, vicinity of, Sierra Nevada: *Dipodomys heermanni.*

Colusa.—Sites: *Dipodomys californicus pallidulus.*

Contra Costa.—Mount Diablo: *Perognathus armatus.*

Walnut Creek, near town of: *Sorex ornatus californicus.*

Del Norte.—Crescent City: *Microtus longicaudus angusticeps.*

El Dorado.—Auburn [East Auburn], near, Middle Fork of American River: *Peromyscus boylii boylii.*

Echo: *Mustela erminea muricus.*

Emerald Bay, Lake Tahoe: *Citellus beecheyi sierrae.*

Fyffe: *Scapanus latimanus minusculus.*

Mount Tallac: *Eptesicus fuscus melanopterus; Thomomys monticola monticola.*

Pyramid Peak, near Lake Tahoe: *Zapus princeps alleni.*

Tallac: *Glaucomys sabrinus lascivus.*

Fresno.—Fresno, San Joaquin Valley: *Thomomys bottae pascalis; Perognathus inornatus inornatus.*

Fresno, 4 miles north of, San Joaquin Valley: *Dipodomys nitratoides exilis.*

Hayes Station, 19 miles southwest of Mendota, near mouth of Panoche

UNITED STATES—Continued

California—Continued

Creek Canyon: *Dipodomys nitratoides brevinasus.*

Little Panoche Creek, mouth of: *Ammospermophilus nelsoni amplus.*

Oxalis, San Joaquin Valley: *Myotis yumanensis oxalis.*

Humboldt.—Arcata, redwoods, near Humboldt Bay: *Phenacomys albipes.*

Cape Mendocino, near Capetown: *Microtus californicus constrictus.*

Carlotta: *Aplodontia rufa humboldtiana.*

Carson's Camp, Mad River, Humboldt Bay: *Sorex trowbridgii humboldtensis.*

Coyote Peak, near, 16 miles east of Patricks Point: *Thomomys bottae silvifugus.*

Cuddeback [Carlotta], ridge about 5 miles northeast of: *Martes caurina humboldtensis.*

Eureka: *Clethrionomys occidentalis californicus.*

Fair Oaks, 6 miles southwest of: *Zapus trinotatus eureka.*

Humboldt Bay: *Thomomys bottae laticeps.*

Trinity Mountains, east of Hoopa Valley: *Citellus lateralis trinitatis.*

Imperial.—Carrizo Creek, Colorado Desert: *Perognathus penicillatus angustirostris; Neotoma albigula venusta.*

Colorado Desert, western edge of, east base of Coast Range: *Lepus californicus deserticola.*

Colorado River, 20 miles above Picacho: *Neotoma lepida grinnelli.*

Fort Yuma, old: *Macrotus californicus; Myotis yumanensis yumanensis; Pipistrellus hesperus hesperus; Citellus tereticaudus tereticaudus; Peromyscus eremicus eremicus; Neotoma cumulator.*

Mountain Spring, east slope Coast Range Mountains: *Perognathus fallax pallidus.*

Mountain Spring, 3 miles east of: *Peromyscus crinitus stephensi.*

New River, about 6 miles west of Imperial, Colorado Desert: *Procyon lotor pallidus.*

New River, near Laguna Station, Colorado Desert: *Lynx rufus eremicus.*

Niland, 1½ miles west of: *Thomomys bottae crassus.*

Old Hanlon Ranch, near Pilot Knob, west side of Colorado River: *Thomomys bottae albatus.*

Inyo.—Alabama Hills (Lone Pine Creek), summit of, near Lone Pine: *Sorex tenellus*

Beveridge Canyon, Inyo Mountains: *Urocyon cinereoargenteus inyoensis.*

Big Cottonwood Meadows, southeast of Mount Whitney: *Eutamias alpinus; Thomomys bottae alpinus; Microtus montanus dutcheri.*

Cottonwood Creek, east slope of White Mountains: *Sorex tenellus myops.*

Cottonwood Lakes, near Mount Whitney, Sierra Nevada: *Ochotona princeps albata.*

Furnace Creek, Death Valley: *Sylvilagus rufipes; Citellus eremonomus; Dipodomys merriami mortivallis; Neotoma desertorum.*

Grapevine Mountains, about 5 miles south of Grapevine Peak: *Ovis canadensis nelsoni.*

Greenwater, 8 miles southwest of Ryan, Black Mountains: *Thomomys bottae oreoecus.*

Hannopee (Hanaupah) Canyon, Panamint Mountains: *Sylvilagus perplicatus; Thomomys bottae scapterus; Peromyscus lasius.*

Independence, 2 miles north of, Carl Walter's Ranch: *Mustela frenata inyoensis.*

Johnson Canyon, Panamint Mountains: *Eutamias panamintinus panamintinus.*

Junction Ranch, Argus Mountains: *Thomomys bottae argusensis; Dipodomys mohavensis argusensis.*

Keeler, east side of, Owens Lake: *Citellus leucurus vinnulus; Thomomys bottae operarius; Perognathus pericalles; Dipodomys deserti helleri; Dipodomys merriami nitratus; Onychomys torridus clarus.*

Kid Mountain, 10 miles west of Bigpine: *Odocoileus hemionus inyoensis.*

Lone Pine, Owens Valley: *Thomomys bottae perpes; Dipodomys microps microps; Peromyscus petraius; Peromyscus parasiticus; Neotoma fuscipes dispar.*

Lone Pine Creek, Alabama Hills, near Lone Pine: *Microtus californicus vallicola.*

Mesquite Valley, Death Valley: *Perognathus penicillatus stephensi.*

UNITED STATES—Continued

California—Continued

Mount Baxter, east slope of, Sierra Nevada; *Ovis cervina sierrae.*

Old Fort Independence, 2 miles north of Independence: *Scapanus latimanus grinnellii.*

Perognathus Flat, Emigrant Gap, 2 miles northwest of Harrisburg, Panamint Mountains: *Perognathus longimembris panamintinus; Dipodomys microps levipes.*

Salt Camp, 1 mile north of, on edge of salt lake, Saline Valley: *Perognathus longimembris salinensis.*

Shepherd Canyon, Argus Mountains: *Citellus beecheyi parvulus.*

Shoshone, Amargosa River: *Thomomys bottae amargosae; Microtus californicus scirpensis.*

White Mountains near head of Black Canyon: *Eutamias quadrivittatus inyoensis.*

Willow Creek, head of, Panamint Mountains: *Dipodomys panamintinus panamintinus.*

Kern.—No exact locality: *Felis concolor californica.*

Bakersfield: *Onychomys torridus tularensis.*

Buena Vista Lake: *Sorex ornatus relictus.*

Buena Vista Lake, east side levee, 2 miles west of Millux: *Thomomys bottae ingens.*

Buttonwillow: *Mustela frenata pulchra; Cervus nannodes.*

Cameron Lake: *Neotoma desertorum grandis.*

Fay Creek, 6 miles north of Weldon: *Eutamias merriami kernensis.*

Fay Creek, near South Fork of Kern River: *Microtus californicus kernensis.*

Fort Tejon, Tehachapi Mountains; *Myotis yumanensis sociabilis; Myotis thysanodes thysanodes; Antrozous pallidus pacificus; Neotoma fuscipes simplex.*

Fort Tejon, Canada de las Uvas, Tehachapi Mountains: *Perognathus longimembris longimembris; Ursus tularensis.*

Freeman Canyon, east slope of Walker Pass: *Perognathus xanthonotus.*

French Gulch, 2½ miles northwest of Claraville, Piute Mountains: *Thomomys bottae piutensis.*

Havilah, near, Southern Sierra Nevada: *Ursus henshawi.*

Lebec, 14 miles west of, near head of Cuddy Valley: *Perognathus alticolus inexpectatus.*

McKittrick: *Perognathus inornatus neglectus.*

Onyx, west end of Walker Pass: *Dipodomys merriami kernensis.*

Onyx, 3 miles above, South Fork of Kern River: *Citellus beecheyi fisheri; Chincha platyrhina.*

San Emigdio: *Neotoma desertorum sola.*

San Emigdio Canyon, head of, Mount Pinos: *Sorex ornatus ornatus.*

San Emigdio ranch, 25 miles southwest of Bakersfield: *Sylvilagus audubonii vallicola.*

Santiago Springs, 16 miles southwest of McKittrick: *Perognathus californicus ochrus.*

Walker Basin: *Dipodomys agilis perplexus.*

Warren, ½ mile east of railway station, about 5 miles north of Mohave: *Dipodomys mohavensis.*

Lake.—Lakeport: *Sitomys robustus.*

Lassen.—Susanville, 1 mile north of: *Thomomys bottae saxatilis.*

Susanville, 2 miles south of: *Thomomys townsendii relictus.*

Los Angeles.—Alhambra: *Eumops perotis californicus.*

Hyperion: *Perognathus longimembris cantwelli.*

Los Angeles: *Dipodomys agilis agilis.*

Playa del Rey: *Sorex ornatus salicornicus; Reithrodontomys megalotis limicola; Microtus californicus stephensi.*

San Clemente Island, Smuggler's (Pyramid) Cove, Santa Barbara Islands: *Peromyscus maniculatus clementis: Urocyon littoralis clementae.*

San Fernando: *Sylvilagus bachmani cinerascens.*

Santa Catalina Island, Santa Barbara Islands; no exact locality: *Urocyon littoralis catalinae.* Avalon, near: *Citellus beecheyi nesioticus; Reithrodontomys megalotis catalinae; Peromyscus maniculatus catalinae.* Avalon Canyon: *Sorex willetti.*

Madera.—Raymond: *Thomomys bottae mewa.*

UNITED STATES—Continued

California—Continued

Marin.—No exact locality: *Neotoma splendens.*

Angel Island, San Francisco Bay: *Scapanus latimanus insularis.*

Inverness: *Eutamias sonomae alleni.*

Lagunitas: *Urocyon cinereoargenteus sequoiensis.*

Nicasio: *Neürotrichus gibbsii hyacinthinus; Spilogale gracilis phenax; Lynx fasciatus oculeus.*

Point Reyes; near Inverness: *Aplodontia rufa phaea; Zapus orarius; Mustela frenata munda.*

Mariposa.—El Portal: *Eutamias merriami mariposae; Peromyscus californicus mariposae.*

El Portal, 1¾ miles west of: *Microtus californicus mariposae.*

El Portal, near, McCauley Trail: *Sylvilagus bachmani mariposae.*

Merced Lake, 1 mile east of, Yosemite National Park: *Myotis yumanensis altipetens.*

Yosemite: *Scapanus latimanus sericatus.*

Yosemite Valley: *Microtus montanus yosemite.*

Yosemite Valley, near old Sentinel Hotel: *Sorex trowbridgii mariposae; Thomomys bottae awahnee.*

Mendocino.—Fort Bragg: *Thomomys bottae minor.*

Laytonville: *Scapanus latimanus caurinus.*

Long Valley, north of Sherwood: *Ursus mendocinensis.*

Mendocino: *Eutamias townsendii ochrogenys; Peromyscus maniculatus rubidus.*

Mount Sanhedrin, 4 miles south of, Lierly's Ranch: *Microtus californicus eximius.*

Philo: *Sciurus hudsonicus orarius.*

Point Arena: *Aplodontia rufa nigra.*

Sherwood: *Glaucomys sabrinus stephensi.*

Ukiah: *Dipodomys heermanni californicus.*

Merced.—Delhi, near Merced River: *Dipodomys heermanni dixoni.*

Los Banos: *Thomomys bottae angularis.*

Los Banos, 22 miles south of, Sweeney's Ranch: *Thomomys bottae diaboli; Neotoma fuscipes perplexa.*

Snelling: *Scapanus latimanus campi.*

Modoc.—Eagleville, 3 miles east of: *Dipodomys microps aquilonius.*

Lake City: *Scapanus truei.*

Parker (Shields) Creek, Warner Mountains: *Neotoma cinerea alticola.*

Warren Peak, Warner Mountains: *Ochotona princeps taylori.*

Mono.—Big Prospector Meadow, White Mountains: *Ochotona princeps sheltoni; Callospermophilus chrysodeirus perpallidus; Thomomys bottae melanotis.*

Blanco Mountain, near, White Mountains: *Eutamias minimus scrutator.*

Kuhlee Ranch, Dexter Creek Meadow, 12 miles northwest of Benton: *Thomomys talpoides monoensis.*

Mammoth, near, head of Owens River, east slope of Sierra Nevada: *Sorex vagrans amoenus.*

McAfee Meadow, White Mountains: *Marmota flaviventris fortirostris.*

McKeever's Ranch, 2 miles south of Benton Station: *Microdipodops megacephalus polionotus.*

Oasis, 3 miles southeast of: *Microdipodops megacephalus dickeyi.*

Pellisier Ranch, 5 miles north of Benton Station: *Dipodomys panamintinus leucogenys; Dipodomys ordii monoensis.*

Taylor Ranch, 2 miles south of Benton Station: *Scapanus latimanus monoensis.*

Warren Fork of Leevining Creek: *Eutamias amoenus monoensis.*

Monterey.—Abbotts Ranch, Arroyo Seco: *Neotoma lepida petricola.*

Arroyo Seco Wash, west side of, 4 miles south of Soledad: *Perognathus longimembris psammophilus; Perognathus inornatus sillimani.*

Elkhorn Slough, salt marsh at mouth of, Moss Landing: *Sorex vagrans paludivagus.*

Indian Harbor, 1½ miles south of Marina: *Perognathus californicus marinensis.*

Jolon, 1 mile southwest of: *Dipodomys heermanni jolonensis; Dipodomys venustus sanctiluciae.*

Jolon, probably on interior slope of mountains near: *Lepus californicus richardsonii.*

Lime Kiln Creek, southwest of Santa Lucia Mountains: *Myotis ruddi.*

Mission of San Antonio, west of, Jolon: *Lepus californicus californicus.*

UNITED STATES—Continued

California—Continued

Monterey: *Sorex trowbridgii montereyensis; Myotis evotis evotis; Myotis californicus californicus; Citellus beecheyi beecheyi; Thomomys bottae bottae; Peromyscus californicus californicus; Peromyscus maniculatus gambelii; Microtus edax; Microtus trowbridgii; Tursiops gillii; Grampidelphis stearnsii; Ursus californicus.*

Monterey Bay: *Eschrichtius glaucus.*

Moss Landing: *Microtus californicus halophilus.*

Salinas, mouth of Salinas Valley: *Dipodomys heermanni goldmani.*

Salinas River, salt marsh at mouth of: *Sorex ornatus salarius; Reithrodontomys megalotis distichalis.*

Seaside: *Neotoma fuscipes luciana.*

Soledad: *Sylvilagus bachmani virgulti.*

Stonewall Creek, about 6$\frac{3}{10}$ miles northeast of Soledad: *Perognathus californicus bensoni.*

Orange.—Santa Ana Canyon, 12 miles northeast of Santa Ana: *Scapanus latimanus occultus.*

Placer.—Auburn: *Corynorhinus rafinesquii intermedius.*

Blue Canyon, Sierra Nevada: *Aplodontia rufa californica; Eutamias macrorhabdotes; Tamiasciurus douglasii albolimbatus.*

Donner (Summit): *Ochotona princeps schisticeps; Citellus beldingi beldingi; Eutamias speciosus frater.*

Donner Pass, summit of: *Eutamias townsendii senex.*

Michigan Bluff, east of: *Eutamias quadrimaculatus.*

Sierra Nevada, no exact locality: *Aplodontia major.*

Tahoe Tavern, ½ mile south of: *Lepus americanus tahoensis.*

Plumas.—Beckwith [Beckwourth], Sierra Valley: *Thomomys talpoides fisheri.*

Sierra Valley, near Vinton: *Microdipodops megacephalus californicus.*

Riverside.—Banning: *Neotoma lepida gilva.*

Blythe: *Thomomys bottae riparius.*

Cabazon, San Gorgonia Pass: *Thomomys bottae cabezonae; Dipodomys agilis cabezonae.*

Clements Well, 2 miles east of: *Thomomys bottae rupestris.*

Lost Horse Mine, Little San Bernardino Mountains, 69 miles east of Riverside: *Peromyscus truei chlorus.*

Palm Springs (formerly Agua Caliente): *Citellus tereticaudus chlorus; Tadarida femorosacca; Dipodomys merriami simiolus; Thomomys bottae perpallidus; Perognathus longimembris bangsi; Perognathus formosus mesembrinus; Neotoma bella.*

Riverside: *Vulpes macrotis macrotis.*

Riverside Mountains: *Bassariscus astutus willetti.*

Round Valley, San Jacinto Mountains: *Thomomys bottae jacinteus.*

San Gorgonio Pass, east of Banning: *Citellus leucurus leucurus.*

Tahquitz Valley, San Jacinto Mountains: *Urocyon cinereoargenteus californicus.*

White Water: *Dipodomys similis.*

Winchester, San Jacinto Valley: *Dipodomys stephensi.*

Sacramento.—Sacramento: *Procyon lotor psora.*

Sacramento River, probably below junction with Feather River: *Mustela frenata xanthogenys.*

San Benito.—Bear Valley: *Peromyscus truei gilberti; Neotoma lepida californica.*

Cook Post Office, near, Bear Valley: *Dipodomys elephantinus; Peromyscus californicus benitoensis.*

Laguna Ranch, Gabilan Range: *Odocoileus columbianus scaphiotus.*

San Bernardino.—Bear Flat Meadows, San Antonio Peak, San Gabriel Mountains: *Thomomys bottae neglectus.*

Bonanza King Mine, Providence Mountains: *Perognathus formosus mohavensis.*

Daggett, Mojave Desert: *Vulpes macrotis arsipus.*

Dry Lake, San Bernardino Mountains: *Microtus longicaudus bernardinus.*

Grapeland, about 10 miles northwest of San Bernardino: *Thomomys bottae pallescens.*

Hesperia, Mojave River: *Dipodomys deserti deserti.*

Horse Spring, 1.4 miles southeast of, Kingston Range: *Eutamias panamintinus acrus.*

Mojave Desert: *Hesperomys leucopus deserticolus.*

Morongo Pass, San Bernadino Mountains: *Onychomys torridus pulcher.*

Needles, 10 miles above, west side of Colorado River: *Myotis occultus.*

UNITED STATES—Continued

California—Continued

Oro Grande, Mojave Desert: *Sylvilagus laticinctus; Sitomys insolatus; Neotoma fuscipes mohavensis.*

Providence Mountains, 6 miles south of Granite Well: *Dipodomys panamintinus caudatus.*

Purdy, 6 miles southeast of New York Mountains, Providence Range: *Thomomys bottae providentialis.*

Rabbit Springs, near, 15 miles east of Mojave River, opposite Hesperia: *Citellus mohavensis.*

Reche Canyon, 3 miles southeast of Colton: *Perognathus fallax fallax; Dipodomys merriami parvus; Peromyscus herronii; Onychomys torridus ramona.*

San Bernardino: *Eptesicus fuscus bernardinus; Perognathus longimembris brevinasus.*

San Bernardino Mountains: *Eutamias merriami merriami; Thomomys bottae altivallis.*

San Bernardino Peak: *Citellus lateralis bernardinus.*

Seven Oaks, San Bernardino Mountains: *Myotis californicus quercinus.*

Squirrel Inn, near Little Bear Valley, San Bernardino Mountains: *Glaucomys sabrinus californicus; Perognathus alticolus alticolus; Sitomys major.*

Strawberry Peak, 2 miles east, San Bernardino Mountains: *Perognathus californicus bernardinus.*

The Needles, 25 miles below, Colorado River: *Perognathus spinatus spinatus.*

Thurman's Camp (now Bluff Lake), western side of San Bernardino Peak: *Sorex obscurus parvidens.*

Victorville: *Microtus californicus mohavensis.*

Victorville, near, Mojave River bottom: *Thomomys bottae mohavensis.*

West Cajon Pass: *Sitomys herroni nigellus.*

White Water Creek, head of, San Bernardino Mountains: *Eutamias speciosus speciosus.*

San Diego.—Barona Ranch, 30 miles east of San Diego: *Odocoileus hemionus fuliginatus.*

Beatty Ranch, Borego Valley: *Thomomys bottae boregoensis.*

Campbell's Ranch, Laguna Mountains: *Sciurus griseus anthonyi.*

Carrizo Creek: *Thomomys bottae aderrans.*

Dulzura: *Perognathus californicus femoralis; Dipodomys agilis simulans; Peromyscus californicus insignis; Peromyscus eremicus fraterculus; Neotoma lepida intermedia; Neotoma fuscipes macrotis.*

Escondido: *Microtus californicus sanctidiegi.*

Jacumba: *Thomomys bottae affinis.*

Julian: *Spilogale gracilis microrhina.*

La Puerta (Mason's Ranch), 5 miles west of Vallecitos: *Thomomys bottae puertae.*

Los Biacitos, head of San Onofre Canyon, Santa Ana Mountains: *Ursus magister.*

Mexican boundary monument No. 258, shore of Pacific Ocean: *Sylvilagus audubonii sanctidiegi; Perognathus longimembris pacificus: Procyon lotor californicus.*

Palm Canyon, mouth of, Borego Valley: *Perognathus spinatus rufescens.*

San Diego: *Lepus californicus bennettii; Thomomys bottae sanctidiegi; Neotoma fuscipes macrotis; Mustela frenata latirostra; Lynx rufus californicus.*

San Felipe Narrows: *Perognathus panamintinus arenicola.*

San Luis River, near Escondido: *Bassariscus astutus octavus.*

Santa Ysabel, San Jacinto Mountains: *Reithrodontomys pallidus.*

Vallecito: *Myotis californicus stephensi; Myotis californicus pallidus.*

Witch Creek, 7 miles west of Julian: *Thomomys bottae nigricans.*

San Francisco.—San Francisco: *Sylvilagus audubonii audubonii.*

San Joaquin.—Tracy: *Canis latrans ochropus; Vulpes macrotis mutica.*

San Luis Obispo.—Morro, 4 miles south of: *Dipodomys heermanni morroensis.*

Painted Rock, 12 miles southeast of Simmler: *Dipodomys ingens.*

San Luis Obispo: *Sylvilagus bachmani bachmani.*

San Miguel, 2 miles south of: *Neotoma fuscipes bullatior.*

Simmler, 7 miles southeast of, Carrizo Plain: *Thomomys bottae infrapallidus; Dipodomys heermanni swarthi.*

San Mateo.—Coast region, no exact locality: *Sciurus griseus nigripes.*

Portola: *Eutamias merriami pricei; Peromyscus dyselius; Neotoma fuscipes annectens.*

UNITED STATES—Continued

California—Continued

Portola, 3½ miles south and 2⅓ miles east of, Alpine Creek Ranch: *Sylvilagus bachmani macrorhinus.*

Redwood City, salt marsh near: *Reithrodontomys raviventris raviventris.*

Santa Barbara.—Carpinteria: *Perognathus californicus dispar.*

Gaviota Pass, near, 40 miles west of Santa Barbara: *Odocoileus hemionus californicus.*

La Purisima Mission, 2½ miles north of: *Dipodomys agilis fuscus.*

Lompoc, 2 miles north-northwest of, C. A. Davis Ranch: *Dipodomys heermanni arenae.*

Point Arguello: *Delphinus bairdii.*

San Miguel Island, Santa Barbara Islands: *Peromyscus maniculatus streatori; Urocyon littoralis littoralis; Enhydra lutris nereis.*

Santa Cruz Island, Santa Barbara Islands: *Reithrodontomys megalotis santacruzae; Peromyscus maniculatus santacruzae; Urocyon littoralis santacruzae.*

Santa Rosa Island, Santa Barbara Islands: *Urocyon littoralis santarosae; Spilogale gracilis amphialus.* Elderberry Canyon: *Peromyscus maniculatus sanctaerosae.*

Santa Clara.—Alum Rock Park: *Neotoma fuscipes affinis.*

San Francisco Bay, salt marsh bordering, near Palo Alto: *Sorex vagrans halicoetes.*

San Francisquito Creek, near Palo Alto: *Microtus californicus californicus.*

Santa Clara: *Scapanus latimanus latimanus.*

Santa Clara Valley, probably near Mountain View: *Peromyscus californicus parasiticus.*

Santa Cruz.—Boulder Creek, 7 miles north of, Santa Cruz Mountains: *Thomomys bottae lorenzi.*

Santa Cruz: *Dipodomys venustus venustus.*

Santa Cruz, 2½ miles east of: *Mustela frenata nigriauris.*

Shasta.—Baird: *Urocyon cinereoargenteus townsendi.*

Ball's Ferry: *Lepus californicus vigilax.*

Carberry Ranch, between Mount Shasta and Mount Lassen: *Neürotrichus gibbsii major.*

Cassel, on Hat Creek, near Pit River: *Castor canadensis shastensis.*

Fort Crook, about 2 miles northeast of Burgettville: *Perognathus parvus mollipilosus; Taxidea taxus neglecta.*

Siskiyou.—Beswick, near mouth of Shovel Creek: *Ursus klamathensis.*

Jackson Lake: *Aplodontia chryseola.*

Mayten, Shasta Valley: *Reithrodontomys klamathensis.*

Mount Shasta, near, headwaters of Sacramento River: *Microtus montanus montanus.*

Sisson, west base of Mount Shasta: *Thomomys monticolus pinetorum.*

Studhorse Canyon, Siskiyou Mountains: *Eutamias amoenus ochraceus.*

Wagon Camp, Mount Shasta: *Sorex shastensis.*

White Mountain, near summit of, Siskiyou Mountains: *Eutamias townsendii siskiyou.*

Solano.—Grizzly Island, Suisun Bay: *Sorex sinuosus; Microtus californicus aestuarinus; Mustela vison aestuarina; Lutra canadensis brevipilosus.*

Sonoma.—Glen Ellen: *Bassariscus astutus raptor.*

Gualala River, near Gualala: *Sorex pacificus sonomae.*

Guerneville, 1 mile west of: *Eutamias sonomae sonomae; Peromyscus truei sequoiensis.*

Petaluma: *Reithrodontomys megalotis longicaudus; Neotoma fuscipes fuscipes; Mephitis mephitis occidentalis.*

Petaluma, salt marsh 3 miles south of: *Reithrodontomys raviventris halicoetes.*

Stanislaus.—Grayson, San Joaquin River: *Castor canadensis subauratus.*

Kincaid's Ranch, 2 miles northeast of Vernalis: *Sylvilagus bachmani riparius; Neotoma fuscipes riparia.*

Sutter.—Marysville Buttes, 3 miles northwest of Sutter: *Dipodomys heermanni eximius.*

Tehama.—Dale's, mesa near, north side of Paines Creek: *Dipodomys heermanni saxatilis.*

Dale's, Paines Creek: *Sylvilagus bachmani tehamae.*

Red Bluff: *Pipistrellus hesperus merriami; Thomomys bottae navus.*

UNITED STATES—Continued

California—Continued

South Yolla Bolly Mountain: *Citellus lateralis nitratus.*

South Yolla Bolly Mountain, 2 miles south of: *Thomomys monticola premaxillaris; Microtus oregoni adocetus.*

Trinity.—Bear Creek: *Glaucomys sabrinus flaviventris.*

Helena: *Dipodomys californicus trinitatis.*

Mad River, valley of, 7 miles above Ruth: *Thomomys bottae acrirostratus.*

South Fork Mountain, Kohnenberger's Ranch: *Neotoma cinerea pulla.*

Tulare.—Alila [Earlimart]: *Lepus tularensis; Dipodomys heermanni tularensis.*

Crater (Groundhog) Meadows, Whitney (Golden Trout) Creek; 27 miles south of Mount Whitney: *Gulo luscus luteus.*

Jordan Hot Springs, near Kern River, Sierra Nevada: *Neotoma cinerea acraia.*

Kennedy Meadows, 1 mile west of, South Fork Kern River: *Perognathus longimembris tularensis.*

Kern River, head of, Mount Whitney: *Marmota flaviventris sierrae.*

Mineralking, east fork of Kaweah River: *Eutamias speciosus sequoiensis.*

Mount Whitney: *Myotis albicinctus.*

Tipton, San Joaquin Valley: *Citellus nelsoni; Dipodomys nitratoides nitratoides.*

Whitney Meadow, near Mount Whitney: *Vulpes fulva necator.*

Tuolumne.—Lyell Canyon, head of, Yosemite National Park: *Martes caurina sierrae.*

Mount Lyell, near head of Lyell Fork of Tuolumne River: *Sorex lyelli.*

Muir Meadow, Tuolumne Meadows, Yosemite National Park: *Phenacomys intermedius celsus.*

Ten Lakes, near, Yosemite National Park: *Ochotona princeps muiri.*

Tuolumne Meadows, Yosemite National Park: *Microtus longicaudus sierrae.*

Ventura.—Lockwood Valley, near Mount Piños: *Perognathus elibatus; Peromyscus montipinoris; Neotoma fuscipes cnemophila.*

Mount Piños, summit of: *Eutamias speciosus callipeplus.*

Piru, near: *Euderma maculata.*

San Nicolas Island, Santa Barbara Islands: *Urocyon littoralis dickeyi.*

Santa Barbara Island, Santa Barbara Islands: *Peromyscus maniculatus elusus.*

West Anacapa Island, Fish Camp: *Peromyscus maniculatus anacapae.*

Yolo.—Stralock Farm, 3 miles west of Davis: *Thomomys bottae agricolaris.*

Colorado

No exact locality, probably in foothills or on western edge of plains: *Ursus planiceps.*

Rocky Mountains, lat. 39° N.: *Reithrodontomys montanus montanus.*

Rocky Mountains, probably in park region of central Colorado: *Tamiasciurus hudsonicus fremontii.*

COUNTY:

Alamosa.—Medano Ranch, 15 miles northeast of Mosca, San Luis Valley: *Eutamias minimus caryi; Thomomys talpoides agrestis; Perognathus apache relictus; Reithrodontomys megalotis caryi.*

Archuleta.—Chromo, northeast of: *Taxidea taxus phippsi.*

Baca.—Furnace Canyon: *Conepatus mesoleucus figginsi.*

Gaume Ranch: *Neotoma albigula warreni.*

William's Corner, near, I. N. Pruitt farm, 11 miles north of Springfield: *Sigmodon hispidus alfredi.*

Bent.—Las Animas, near, Arkansas River; *Cratogeomys castanops castanops.*

Boulder.—Boulder: *Eptesicus fuscus pallidus.*

Gold Hill: *Eutamias minimus operarius; Neotoma mexicana fallax.*

Twin Peak, near Long's Peak: *Phenacomys preblei.*

Ward: *Clethrionomys gapperi galei.*

Chaffee.—Salida: *Thomomys bottae internatus; Dipodomys ordii evexus.*

Costilla.—Medano Creek: *Reithrodontomys montanus montanus.*

Old Fort Massachusetts (now Fort Garland): *Dipodomys ordii montanus.*

Custer.—Marion Reservoir, or Lake, near, Wet Mountains: *Marmota flaviventris notioros.*

Douglas.—D'Arcy Ranch, 2 miles north of Parker: *Thomomys talpoides macrotis.*

UNITED STATES—Continued

Colorado—Continued

El Paso.—Glen Eyrie Estate, about 5 miles northwest of Colorado Springs: *Nemorhaedus palmeri.*

Monument Creek, southwest of Monument: *Castor canadensis concisor.*

Fremont.—Garden Park, near Canyon [Cañon] City: *Conepatus mesoleucus fremonti.*

Garfield.—Marvine Mountain: *Martes caurina origenes.*

Rifle, 8 miles west of: *Perognathus apache caryi.*

Gunnison.—Smith Trail, 2 miles west of Crested Butte: *Marmota flaviventris warreni.*

Jackson.—Canadian River, sandhills 5 miles east of, Medicine Bow Range, east of Walden, North Park: *Lagurus curtatus levidensis.*

Higho Post Office, range 8 miles northwest of: *Marmota flaviventer campioni.*

Kit Carson.—Flagler: *Thomomys talpoides retrorsus.*

Lake.—Twin Lakes: *Ursus macrodon.*

La Plata.—Bondad, near: *Neotoma albigula laplataensis.*

Florida: *Thomomys talpoides fossor; Zapus princeps princeps.*

Larimer.—Arkins: *Spilogale gracilis tenuis.*

Estes Park: *Sorex nanus; Peromyscus nasutus nasutus; Ursus shoshone.*

Loveland: *Sciurus aberti ferreus; Perognathus fasciatus infraluteus.*

Las Animas.—Irwin's Ranch: *Eutamias quadrivittatus animosus.*

Purgatory [Purgatoire] River, near mouth of Chacuaco Creek: *Citellus variegatus grammurus.*

Logan.—South Platte River: *Vulpes velox velox.*

Mesa.—Grand Junction: *Citellus leucurus pennipes; Thomomys bottae howelli.*

Montrose.—Coventry, Naturita Creek Valley: *Sylvilagus audubonii warreni; Thomomys bottae optabilis.*

Naturita, 5 miles west of: *Dipodomys ordii nexilis.*

Otero.—Arkansas River, near La Junta: *Myotis subulatus subulatus.*

Park.—Montgomery, near Mount Lincoln: *Ochotona princeps saxatilis.*

Rock Creek, head of, South Park: *Bison bison haningtoni.*

Prowers.—Lamar, Arkansas River Valley: *Geomys bursarius jugossicularis.*

Pueblo.—Arkansas River, about 26 miles below Canyon [Cañon] City: *Citellus lateralis lateralis; Eutamias quadrivittatus quadrivittatus.*

Rio Blanco.—Pagoda Peak: *Ochotona princeps figginsi.*

Routt.—Snake River, south of Sunny Peak: *Myotis lucifugus phasma.*

Saguache.—Center, 9 miles east of: *Perognathus flavus sanluisi.*

Cochetopa (Sawatch) Pass: *Cynomys gunnisoni gunnisoni; Microtus pennsylvanicus modestus.*

Cochetopa Pass, 2½ miles east of summit of: *Microtus montanus fusus.*

Saguache Valley, 20 miles west of Saguache: *Neotoma cinerea orolestes.*

San Juan.—Silverton: *Putorius streatori leptus.*

Summit.—Blue River: *Ursus horribilis bairdi.*

Connecticut

County:

New London.—Liberty Hill: *Sylvilagus transitionalis; Tamiasciurus hudsonicus loquax.*

Delaware

County:

Newcastle.—Wilmington: *Sciurus niger neglectus.*

Florida

No exact locality: *Atalapha borealis peninsularis; Lynx rufus floridanus; Odocoileus fraterculus.*

Capes of east Florida, near: *Trichechus manatus latirostris.*

St. Johns River, no exact locality: *Sigmodon hispidus hispidus.*

County:

Alachua.—Alachua Savanna (now Payne's Prairie): *Canis niger niger.*

Gainesville: *Scalopus aquaticus australis; Oryzomys palustris natator; Sitomys niveiventris subgriseus; Peromyscus floridanus.*

Bay.—St. Andrews Point Peninsula: *Peromyscus polionotus peninsularis.*

Brevard.—Chester Shoal, 11 miles north of Cape Canaveral: *Cryptotis floridana.*

East Peninsula, opposite Micco: *Peromyscus polionotus niveiventris; Sigmodon hispidus littoralis.*

Eau Gallie: *Geomys pinetis goffi.*

Georgiana: *Neofiber alleni alleni.*

UNITED STATES—Continued

Florida—Continued

Micco: *Mephitis mephitis elongata; Lutra canadensis vaga.*

Oak Lodge, on East Peninsula opposite Micco: *Didelphis marsupialis pigra; Sylvilagus floridanus ammophilus; Peromyscus gossypinus palmarius; Procyon lotor elucus; Spilogale ambarvalis.*

Sebastian River: *Sylvilagus floridanus floridanus.*

Wilderness back of Sebastian: *Felis concolor coryi.*

Citrus.—Citronelle: *Glaucomys volans querceti; Odocoileus virginianus osceola.*

Fort Island, near Crystal River: *Sylvilagus palustris paludicola.*

Collier.—Chokoloskee, near: *Procyon lotor marinus.*

Everglades: *Sciurus niger avicennia; Oryzomys natator floridanus.*

Everglades, 10 miles northeast of: *Odocoileus virginianus seminolus.*

Monroe Station, 2½ miles east of: *Nycticeius humeralis subtropicalis.*

Royal Palm Hammock: *Peromyscus gossypinus telmaphilus.*

Tamiami Trail (U. S. Route 41), 5 miles southeast of Royal Palm Hammock: *Mustela vison evergladensis.*

Dade.—Biscayne Bay, 6 miles south of Miami: *Lynx floridanus.*

Key Biscayne: *Euarctos americanus floridanus.*

Miami: *Sciurus carolinensis extimus.*

Miami, 21 miles west of: *Neofiber alleni struix.*

Miami River: *Blarina brevicauda peninsulae.*

Uleta: *Scalopus aquaticus porteri.*

Duval.—St. Johns River, probably near Jacksonville: *Neotoma floridana floridana.*

Hillsborough.—Anclote River: *Peromyscus polionotus rhoadsi.*

Lee.—Captiva Island: *Sigmodon hispidus insulicola.*

Marion.—Lynne, near, Lynne Planting Station, U. S. Forest Service: *Pitymys parvulus.*

Monroe.—Big Pine Key: *Sigmodon hispidus exsputus; Odocoileus virginianus clavium.*

Cape Sable: *Oryzomys palustris coloratus; Sigmodon hispidus spadicipygus.*

Key Largo: *Sciurus carolinensis matecumbei.*

Key Largo, 12 miles northeast of Rock Harbor: *Peromyscus gossypinus allapaticola.*

Marathon, Key Vaca: *Procyon lotor auspicatus.*

Torch Key, Big Pine Key group: *Procyon lotor incautus.*

Upper Matecumbe Key: *Procyon lotor inesperatus.*

Osceola.—Lake Kissimmee: *Dasypterus floridanus.*

Palm Beach.—Canal Point: *Sigmodon hispidus floridanus.*

Lake Worth: *Hesperomys macropus.*

Ritta, Lake Okeechobee: *Neofiber alleni nigrescens.*

Pasco.—Hudson (14 miles north of Tarpon Springs, Pinellas County): *Mustela frenata peninsulae.*

Willow Oak: *Reithrodontomys humulis dickinsoni.*

Pinellas.—Belleair: *Geomys pinetis austrinus.*

Tarpon Springs: *Scalopus aquaticus parvus; Myotis austroriparius austroriparius; Eptesicus fuscus osceola; Lasiurus borealis seminolus; Urocyon cinereoargenteus floridanus.*

Putnam.—Horse Landing, St. Johns River, about 12 miles south of Palatka; *Canis floridanus.*

Santa Rosa.—Santa Rosa Island, opposite Camp [Fort] Walton: *Peromyscus polionotus leucocephalus.*

Sarasota.—Chadwick Beach, near Englewood: *Peromyscus gossypinus restrictus.*

Engelwood: *Scalopus aquaticus bassi.*

St. Johns.—Anastasia Island, Point Romo: *Scalopus aquaticus anastasae; Peromyscus polionotus phasma; Peromyscus gossypinus anastasae.*

Matanzas Inlet, salt marsh off: *Mustela vison lutensis.*

St. Augustine: *Geomys pinetis floridanus.*

Volusia.—Ponce Park, near Mosquito Inlet: *Peromyscus polionotus decoloratus.*

Walton.—Whitfield: *Peromyscus polionotus albifrons.*

Georgia

No exact locality: *Peromyscus polionotus polionotus.*

UNITED STATES—Continued

Georgia—Continued

COUNTY:

Baldwin.—Milledgeville: *Molossus fuliginosus.*

Camden.—Arnot Plantation, about 4 miles west of St. Mary's: *Geomys colonus.*

Cumberland Island: *Peromyscus insulanus.*

Stafford Place, Cumberland Island: *Geomys cumberlandius.*

Chatham.—Savannah, about 7 miles northwest of: *Geomys fontanelus.*

Glynn.—St. Simon Island: *Procyon lotor litoreus.*

Liberty.—Le Conte plantation near Riceboro, probably: *Myotis lucifugus lucifugus; Corynorhinus macrotis; Tadarida cynocephala; Peromyscus gossypinus gossypinus; Pitymys pinetorum pinetorum.*

Lumpkin.—Blood Mountain: *Neotoma floridana haematoreia.*

McIntosh.—Blackbeard Island: *Odocoileus virginianus nigribarbis.*

Richmond.—Augusta, pine barrens near: *Geomys tuza tuza.*

Screven.—Pine woods, no definite locality: *Geomys pinetis pinetis.*

Hursman Lake: *Peromyscus subgriseus arenarius.*

Idaho

COUNTY:

Adams.—New Meadows: *Citellus brunneus.*

Smith Mountain, summit of, near head of Bear Creek, Seven Devils Mountains: *Ochotona princeps howelli.*

Bannock.—Pocatello: *Lepus californicus depressus; Thomomys townsendii similis.*

Bear Lake.—Copenhagen Basin, north rim of: *Ochotona princeps clamosa.*

Montpelier Creek, about 10 miles northeast of Montpelier: *Thomomys talpoides pygmaeus.*

Raymond: *Glaucomys sabrinus bangsi.*

Benewah.—Benewah: *Mustela erminea invicta.*

Bingham.—Blackfoot: *Onychomys leucogaster brevicaudus.*

Snake River, west side of, near Blackfoot: *Eutamias minimus melanurus.*

Blaine.—Big Wood River, near Bellevue: *Castor canadensis taylori.*

Sawtooth (Alturas) Lake, east base of Sawtooth Mountains: *Sorex dobsoni; Glaucomys bullatus; Clethrionomys gapperi idahoensis; Microtus longicaudus mordax.*

Bonner.—Coolin, Priest Lake: *Odocoileus virginianus ochrourus.*

Butte.—Big Lost River, lower part of: *Citellus mollis pessimus.*

Echo Crater, Craters of the Moon National Monument, 20 miles southwest of Arco, Snake River Desert: *Ochotona princeps goldmani; Perognathus parvus idahoensis.*

Grassy Cone, Craters of the Moon National Monument, 26 miles southwest of Arco, Snake River Desert; *Eutamias amoenus cratericus.*

Canyon.—Nampa: *Thomomys nevadensis atrogriseus; Thomomys townsendii townsendii.*

Clearwater.—Jim Ford Creek, about 7 miles northeast of mouth of Lolo Fork of Clearwater River: *Citellus columbianus columbianus.*

Lower Clearwater River, Camp Chopunnish, near mouth of Jim Ford Creek: *Euarctos americanus cinnamomum.*

Custer.—Big Lost River, head of: *Tamiasciurus hudsonicus richardsoni.*

Double Springs, 16 miles northeast of Dickey: *Citellus richardsonii aureus.*

Mill Creek, 14 miles west of Challis: *Peromyscus maniculatus serratus.*

Pahsimeroi Mountains, head of Pahsimeroi River: *Microtus richardsoni macropus; Microtus montanus nanus.*

Pahsimeroi Valley, near Goldburg: *Sylvilagus idahoensis.*

Summit Creek, in mountains at head of Big Lost River: *Thomomys talpoides fuscus.*

Fremont.—Teton River, north fork of: *Ursus idahoensis.*

Jerome.—Shoshone Falls, north side of Snake River: *Peromyscus crinitus crinitus.*

Kootenai.—Coeur d'Alene: *Eutamias ruficaudus simulans.*

Latah.—Cedar (Moscow) Mountain: *Lepus americanus pineus.*

Lemhi.—Birch Creek, 10 miles south of Nicholia: *Citellus townsendii artemisiae; Thomomys talpoides idahoensis.*

Timber Creek, Lemhi (Salmon River) Mountains, 10 miles west of Junction: *Sorex idahoensis; Sorex obscurus obscurus; Ochotona princeps lemhi.*

UNITED STATES—Continued

Idaho—Continued

Timber Creek, near head of, Salmon River Mountains: *Phenacomys orophilus.*

Minidoka.—Twin Springs, 20 miles north of Minidoka, Snake River Desert: *Thomomys talpoides relicinus.*

Owyhee.—Castle Creek, 8 miles south of Oreana: *Thomomys townsendii owyhensis.*

Murphy, in hills west of Snake River: *Citellus leurodon.*

Murphy, 5 miles southeast of: *Dipodomys microps idahoensis.*

Payette.—Payette, at junction of Payette and Snake Rivers: *Citellus townsendii idahoensis; Reithrodontomys megalotis nigrescens.*

Valley.—Warm Lake, 5 miles east of: *Zapus princeps idahoensis.*

Illinois

No exact locality: *Sciurus rubicaudatus.*

Bottomlands of Wabash, Illinois, and Missouri Rivers, and Michigan: *Sciurus sayii.*

County:

Kankakee.—Momence, 1 mile south of: *Geomys bursarius illinoensis.*

Mason.—San Jose: *Mephitis mephitis avia.*

McLean.—Bloomington: *Peromyscus maniculatus bairdii; Synaptomys cooperi saturatus.*

Union.—Wolf Lake: *Neotoma floridana illinoensis.*

Indiana

Wabash River Valley: *Sorex cinereus lesueurii.*

County:

Crawford.—Wyandotte Cave: *Myotis sodalis.*

Posey.—New Harmony: *Cryptotis parva harlani; Pedomys ochrogaster ochrogaster; Hesperomys indianus.*

Iowa

County:

Wright.—Clarion, near: *Taxidea taxus iowae.*

Kansas

Northeastern Kansas, no exact locality: *Sciurus macroura.*

County:

Barber.—Sun City, 7 miles south of: *Antrozous bunkeri.*

Douglas.—Lawrence: *Reithrodontomys megalotis dychei.*

Lawrence, 7 miles southwest of: *Marmota monax bunkeri.*

Lawrence, 5½ miles north and 1¾ miles east of: *Zapus hudsonius pallidus.*

Wakarusa Creek: *Odocoileus virginianus macrourus.*

Hamilton.—Coolidge, 1 mile east of, Conard Farm: *Perognathus flavus bunkeri.*

Lane.—Pendennis: *Citellus tridecemlineatus arenicola; Neotoma floridana campestris.*

Leavenworth.—McLouth, 4 miles southwest of: *Taxidea taxus kansensis.*

Meade.—Fowler, 1½ miles north of: *Geomys bursarius industrius; Pedomys ochrogaster taylori.*

Meade County State Park, 14 miles southwest of Meade: *Synaptomys cooperi paludis.*

Montgomery.—Independence: *Lepus californicus melanotis.*

Riley.—Manhattan: *Scalopus aquaticus machrinoides.*

Trego.—Banner, near, Hackberry Creek, about 1 mile from Castle Rock: *Vespertilio ciliolabrum.*

Banner: *Perognathus hispidus paradoxus; Taxidea taxus merriami.*

Wakeeney: *Ondatra zibethicus cinnamominus.*

Woodson.—Neosho Falls: *Synaptomys cooperi gossii.*

Kentucky

No exact locality: *Nycticeius humeralis humeralis.*

Pine barrens, no exact locality: *Peromyscus leucopus leucopus.*

County:

Fayette.—Lexington, near: *Scalopus aquaticus machrinus.*

Harlan.—[Big] Black Mountains, 4½ miles southeast of Lynch: *Clethrionomys gapperi maurus.*

Pulaski.—Eubank: *Pitymys pinetorum carbonarius.*

Louisiana

No exact locality: *Euarctos americanus luteolus; Mephitis mephitis mesomelas.*

Parish:

Acadia.—Cartville: *Mephitis mephitica scrutator.*

Calcasieu.—Iowa: *Pedomys ludovicianus.*

UNITED STATES—Continued

Louisiana—Continued

Concordia.—Vidalia, 12 miles southwest of: *Felis arundivaga.*

East Baton Rouge.—Comite River, 13 miles northeast of Baton Rouge: *Blarina brevicauda minima.*

University Campus, near Baton Rouge: *Myotis austroriparius gatesi.*

Iberia.—Avery Island, near: *Odocoileus virginianus mcilhennyi.*

Marsh Island: *Procyon lotor megalodous.*

Iberville.—No exact locality: *Sciurus niger subauratus.*

Lafayette. — Lafayette: *Reithrodontomys fulvescens aurantius.*

Madison.—Mack's Bayou, 3 miles east of Tensas River, 18 miles southwest of Tallulah: *Canis niger gregoryi.*

Morehouse.—Mer Rouge: *Odocoileus virginianus louisianae.*

Prairie Mer Rouge: *Geomys bursarius breviceps.*

Natchitoches.—Red River: *Sciurus niger ludovicianus.*

Orleans.—New Orleans: *Sciurus carolinensis fuliginosus; Sciurus auduboni.*

Plaquemines.—Burbridge: *Peromyscus gossypinus nigriculus; Ondatra zibethicus rivalicius; Mustela vison vulgivaga.*

St. James.—Remy: *Mustela frenata arthuri.*

Terrebonne.—Gibson: *Neotoma floridana rubida.*

Houma: *Sylvilagus aquaticus littoralis.*

Washington.—Enon, 10 miles northwest of: *Sciurus niger bachmani.*

West Feliciana.—Tunica, 5 miles south of: *Tamias striatus pipilans.*

Maine

County:

Cumberland.—Casco Bay, near Portland: *Lagenorhynchus gubernator.*

Flagg Island, Casco Bay: *Lutreola vison antiquus.*

Hancock.—Brooklin, shell heaps at: *Mustela macrodon.*

Bucksport, near mouth of Penobscot River: *Mustela frenata occisor; Odocoileus virginianus borealis.*

Mount Desert Island: *Zapus hudsonius hardyi.*

Tumble Down Dick Island, near Long Island, Penobscot Bay: *Microtus pennsylvanicus shattucki.*

Piscataquis.—Greenville, near Moosehead Lake: *Tamiasciurus hudsonicus gymnicus.*

Maryland

No exact locality: *Marmota monax monax; Mustela vison mink; Mephitis mephitis nigra.*

County:

Dorchester.—No exact locality: *Sciurus niger bryanti.*

Blackwater National Wildlife Refuge: *Procyon lotor maritimus.*

Montgomery.—Plummers Island, Potomac River, 10 miles above Washington, D. C.: *Myotis winnemana.*

Prince Georges.—Beltsville, near: *Sorex cinereus fontinalis.*

Massachusetts

Woods Hole or Cape Cod: *Lagenorhynchus perspicillatus.*

County:

Barnstable.—Monomoy Island: *Peromyscus leucopus ammodytes.*

Berkshire.—Williamstown: *Mustela frenata noveboracensis.*

Dukes.—West Tisbury, Martha's Vineyard Island: *Blarina brevicauda aloga; Peromyscus leucopus fusus.*

Middlesex.—Wilmington: *Marmota monax preblorum.*

Nantucket.—Muskeget Island, off Nantucket: *Microtus breweri.*

Nantucket Island: *Blarina brevicauda compacta.*

Michigan

No exact locality: *Peromyscus maniculatus gracilis.*

County:

Keweenaw.—Belle Isle, Isle Royale: *Tamiasciurus hudsonicus regalis.*

Luce.—Tahquamenaw [Taquamenon] River, 5 miles above falls: *Castor canadensis michiganensis.*

Presque Isle.—Millersburg, 3 miles southeast of, Barnhard Lake: *Tamias striatus peninsulae.*

Minnesota

No exact locality: *Mephitis minnesotae.*

Central Minnesota, no exact locality: *Citellus tridecemlineatus tridecemlineatus.*

UNITED STATES—Continued

Minnesota—Continued

COUNTY:

Clay.—Moorhead: *Tamiasciurus hudsonicus murii.*

Hennepin.—Fort Snelling: *Sylvilagus floridanus mearnsii; Tamias striatus griseus; Tamiasciurus hudsonicus minnesota; Peromyscus leucopus minnesotae; Mustela frenata spadix.*

Kittson.—Hallock: *Lepus americanus phaeonotus; Odocoileus virgultus.*

Sherburne.—Elk River: *Sorex arcticus laricorum; Marmota monax rufescens; Sciurus carolinensis hypophaeus; Geomys bursarius bursarius; Vulpes fulva regalis; Procyon lotor hirtus; Mustela erminea bangsi; Mustela vison letifera.*

Mississippi

COUNTY:

Adams.—Washington: *Pitymys pinetorum auricularis.*

Missouri

COUNTY:

Jasper.—Avilla, 5 miles northeast of: *Mustela frenata primulina.*

Vernon.—Stotesbury: *Citellus tridecemlineatus badius.*

Montana

COUNTY:

Beaverhead.—Dillon, 35 miles south of: *Taxidea taxus montana.*

Big Horn.—Fort Custer: *Peromyscus leucopus aridulus.*

Little Bighorn River, about 1½ miles above Fort Custer: *Sorex merriami merriami.*

Carbon.—Little Bighorn River, head of, Bighorn Mountains: *Ursus absarokus.*

Red Lodge: *Canis lupus irremotus.*

Sage Creek, head of, Pryor Mountains: *Thomomys talpoides pryori.*

Cascade.—Great Falls, near: *Neotoma cinerea cinerea.*

Custer.—Calf Creek: *Peromyscus maniculatus osgoodi.*

Dawson.—Camp Thorne, near Glendive, Yellowstone River: *Eutamias minimus pallidus.*

Glendive: *Microtus pennsylvanicus wahema.*

Deer Lodge.—No exact locality: *Peromyscus texanus subarcticus.*

Flathead.—Chief Mountain (Waterton) Lake: *Ochotona princeps levis.*

Summit Mountain, north of Summit Station: *Eutamias minimus oreocetes.*

Glacier.—St. Mary Lake: *Phenacomys intermedius levis.*

Upper St. Mary Lake: *Eutamias ruficaudus ruficaudus.*

Upper St. Mary Lake, mountains near: *Marmota caligata nivaria.*

Lewis and Clark.—Helena: *Citellus lateralis cinerascens.*

Mineral.—Silver, near Saltese, Coeur d'Alene Mountains: *Thomomys talpoides saturatus.*

Missoula.—Missoula: *Oreamnos americanus americanus.*

Sleeman Creek, about 10 miles southwest of Missoula: *Felis concolor missoulensis.*

Park.—West Boulder Creek, Absaroka Mountains, 18 miles southeast of Livingston: *Thomomys talpoides kelloggi.*

Powder River.—Powderville: *Thomomys talpoides bullatus.*

Ravalli.—Bass Creek, near Stevensville: *Eutamias amoenus vallicola.*

Gird Creek, near Hamilton: *Thomomys talpoides confinis.*

Hamilton, 6 miles east of: *Microtus montanus pratincolus.*

Willow Creek, 7 miles east of Corvallis: *Marmota flaviventris nosophora.*

Richland.—Yellowstone River, mouth of: *Citellus tridecemlineatus pallidus.*

Roosevelt.—Fort Union: *Sorex cinereus haydeni.*

Rosebud.—Yellowstone River, 5 miles west of Forsyth: *Dipodomys ordii terrosus.*

Sweet Grass.—Big Timber Creek, near head of, about 15 miles northwest of Big Timber, Crazy Mountains: *Thomomys talpoides trivialis.*

Valley.—Missouri River, a little above mouth of Poplar River: *Ursus horribilis horribilis.*

Nebraska

COUNTY:

Antelope.—Neligh: *Scalopus aquaticus caryi.*

Boyd.—Spencer: *Geomys bursarius levisagittalis.*

Brown.—Johnstown: *Canis latrans nebracensis.*

UNITED STATES—Continued

Nebraska—Continued

Cherry.—Kennedy: *Perognathus flavescens flavescens; Reithrodontomys dychei nebrascensis; Peromyscus luteus.*

Kennedy, 18 miles northwest of: *Reithrodontomys montanus albescens.*

Valentine: *Sylvilagus floridanus similis; Neotoma floridana baileyi.*

Cheyenne.—Dalton, 2 miles south of: *Thomomys talpoides cheyennensis.*

Cuming.—Beemer: *Mustela rixosa campestris.*

Dawes.—Chadron: *Perognathus flavescens olivaceogriseus.*

Chadron, 10 miles south of: *Geomys bursarius hylaeus.*

Wayside: *Thomomys talpoides pierreicolus.*

Dawson.—50 miles west of Fort Kearney: *Citellus spilosoma obsoletus.*

Lancaster.—Lincoln: *Geomys bursarius majusculus.*

Lincoln.—Birdwood Creek, sandhills on: *Geomys bursarius lutescens.*

Merrick.—Palmer, 6 miles northeast of: *Bison bison septemtrionalis.*

Otoe.—Nebraska City: *Glaucomys volans nebrascensis.*

Scotts Bluff.—Mitchell, 3 miles east of: *Erethizon dorsatum bruneri.*

Scottsbluff: *Geomys bursarius vinaceus.*

Seward.—Lincoln Creek, west of Seward: *Lutra canadensis interior.*

Sheridan.—Deer Creek: *Peromyscus maniculatus nebrascensis.*

Washington.—Engineer Cantonment, near Blair, west bank of Missouri River: *Blarina brevicauda brevicauda; Cryptotis parva parva; Canis latrans latrans; Canis lupus nubilus.*

Nevada

COUNTY:

Churchill.—Dixie Meadows, south end of Humboldt Salt Marsh: *Thomomys bottae depressus.*

East Gate: *Thomomys bottae lucrificus.*

Fallon: *Ondatra zibethicus mergens.*

Mountain Well: *Microdipodops pallidus pallidus.*

Clark.—Bunkerville, 7 miles above, sand flats along Virgin River: *Perognathus penicillatus sobrinus.*

Charleston Peak, Charleston Mountains: *Eutamias palmeri; Neotoma cinerea lucida.*

Charleston Peak, north base of, Charleston Mountains: *Citellus lateralis certus.*

El Dorado Canyon: *Bassariscus astutus nevadensis.*

Hidden Forest, Sheep Mountains: *Eutamias quadrivittatus nevadensis; Thomomys bottae phelleoecus.*

Mormon Well, Sheep Mountains: *Eutamias dorsalis grinnelli.*

Wheeler Well, ½ mile west of, Charleston Mountains (Peak); *Eutamias panamintinus juniperus.*

White Sage Flat, between Desert Range and Sheep Range, Desert Game Range: *Taxidea taxus halli; Taxidea taxus nevadensis.*

Douglas.—Carson Valley: *Citellus mollis washoensis.*

Gardnerville: *Peromyscus crinitus scitulus.*

Elko.—Deeth, near Humboldt River: *Lutra canadensis nexa.*

Halleck, East Humboldt Valley: *Perognathus longimembris nevadensis; Microdipodops megacephalus megacephalus.*

Pilot Peak, ½ mile west of Debbs Creek: *Peromyscus truei nevadensis.*

Ruby Mountains: *Zapus princeps nevadensis.*

Ruby Mountains, southwest of Ruby Valley Post Office: *Ochotona princeps nevadensis.*

Esmeralda.—Arlemont (Chiatovich Ranch), Fish Lake Valley: *Thomomys bottae lacrymalis.*

Clayton Valley, 8 miles southeast of Blair: *Microdipodops megacephalus lucidus.*

Mount Magruder: *Perognathus parvus magruderensis.*

Pigeon Spring, Mount Magruder: *Lagurus curtatus curtatus.*

Eureka.—Evans: *Thomomys townsendii elkoensis.*

Romano, 4 miles southeast of, Diamond Valley: *Dipodomys microps centralis.*

Humboldt.—Big Creek, head of, Pine Forest Mountains: *Citellus lateralis trepidus; Eutamias amoenus celeris; Lagurus curtatus intermedius; Zapus princeps curtatus.*

UNITED STATES—Continued

Nevada—Continued

Humboldt River, near, 4 miles above Winnemucca: *Castor canadensis baileyi.*

Jungo, 11 miles east and 1 mile north of: *Dipodomys ordii inaquosus.*

Paradise: *Citellus richardsonii nevadensis.*

Quinn River Crossing: *Thomomys townsendii bachmani.*

Sulphur, 1¼ miles north of: *Microdipodops megacephalus ambiguus.*

Virgin Valley: *Neotoma lepida nevadensis.*

Willow Creek Ranch, near Jungo: *Vulpes macrotis nevadensis.*

Lander.—Austin, 5 miles west of, Reese River bottomlands: *Thomomys townsendii nevadensis.*

Izenhood, 3 miles south of: *Microdipodops megacephalus nexus.*

Reese River at line between Lander and Nye Counties: *Sorex vagrans nevadensis.*

Reese River Valley, 7 miles north of Austin: *Citellus beldingi creber.*

Lincoln.—Groom Baldy, 14½ miles south of: *Microdipodops pallidus purus.*

Hiko, Pahranagat Valley: *Microtus montanus fucosus.*

Panaca, 2 miles north of: *Dipodomys ordii fetosus.*

Panaca, 21 miles west of, Desert Valley: *Microdipodops megacephalus albiventer.*

Lyon.—Smith's Valley, West Walker River: *Thomomys bottae cinereus.*

Mineral.—Finger-Rock Wash, Stewart Valley: *Thomomys bottae solitarius.*

Fletcher: *Microdipodops megacephalus nasutus.*

Queen Station, near head of Owens Valley: *Citellus mollis stephensi.*

Schurz, 3 miles south of: *Dipodomys microps occidentalis.*

Nye.—Ash Meadows, big salt marsh below Watkins Ranch: *Microtus montanus nevadensis.*

Bell's Ranch, Reese River Valley: *Thomomys talpoides falcifer.*

Belted Range, south end of, 5½ miles northwest of Whiterock Spring: *Thomomys bottae nanus.*

Breen Creek, Kawich Range: *Thomomys bottae brevidens.*

Fish Spring Valley, 2 miles southeast of Tulle Peak: *Thomomys bottae abstrusus.*

Greenmonster Canyon, Monitor Mountains: *Ochotona princeps tutelata.*

Jefferson, Toquema Range: *Marmota flaviventris parvula.*

Kawich Post Office, 5 miles southeast of, Kawich Valley: *Microdipodops megacephalus sabulonis; Microdipodops pallidus ruficollaris.*

Milman Ranch, Moores Creek, 19 miles southeast of Millett Post Office: *Thomomys bottae fumosus.*

Mount Jefferson, south slope of, Toquema Range: *Thomomys bottae vescus.*

Oasis Valley: *Reithrodontomys megalotis deserti.*

Potts Ranch, Monitor Valley: *Thomomys bottae concisor.*

Railroad Valley, Able Spring, 12½ miles south of Lock's Ranch: *Microdipodops pallidus ammophilus.*

San Antonio: *Thomomys bottae curtatus.*

Toyabe Mountains, near Cloverdale: *Canis latrans lestes.*

Wisconsin Creek, Toyabe Mountains: *Microtus longicaudus latus; Zapus princeps palatinus.*

Pershing.—Lovelock: *Microtus montanus undosus.*

Vernon, 3 miles south of: *Microdipodops megacephalus medium.*

Washoe.—California Boundary, 6 miles east of, lat. 40° 28′ E.: *Perognathus formosus melanurus.*

Deep Hole, north end of Smoke Creek Desert: *Thomomys bottae canus.*

Pyramid Lake: *Dipodomys merriami nevadensis.*

White Pine.—Baker, 3 miles east of: *Mustela frenata nevadensis.*

Baker, 2½ miles east of: *Thomomys bottae centralis.*

Cherry Creek: *Thomomys bottae latus.*

Spring Valley, Cleveland Ranch: *Microtus montanus micropus.*

Smith Creek Cave, ½ mile south of, Mount Moriah: *Perognathus longimembris gulosus.*

Smith Creek Cave, 2 miles west of, Mount Moriah: *Perognathus formosus incolatus.*

New Hampshire

Carroll.—Jackson: *Synaptomys cooperi cooperi.*

UNITED STATES—Continued

New Hampshire—Continued

Cheshire.—Marlboro, 7 miles from Monadnock: *Urocyon cinereoargenteus borealis.*

Coos.—Alpine Garden, near head of Tuckerman's Ravine, Mount Washington: *Clethrionomys gapperi ochraceus.*

Fabyans, Mount Washington: *Synaptomys borealis sphagnicola.*

Tuckerman's Ravine, head of, Mount Washington: *Microtus chrotorrhinus chrotorrhinus.*

Grafton.—Profile Lake, Franconia Mountains: *Sorex palustris albibarbis.*

New Jersey

New Jersey and Delaware: *Fiber niger.*

County:

Atlantic.—Mays Landing, [Great] Egg [Harbor] River: *Synaptomys cooperi stonei; Clethrionomys gapperi rhoadsii.*

Cape May.—Tuckahoe River, east of Tuckahoe: *Sorex cinereus nigriculus.*

Cumberland.—Maurice River, mouth of: *Globicephalus brachypterus.*

Ocean.—Tuckerton, near: *Sciurus hiemalis.*

Salem.—Salem, near, Fast Land: *Oryzomys palustris palustris.*

New Mexico

County:

Bernalillo.—Albuquerque: *Citellus spilosoma major; Cratogeomys castanops hirtus.*

Clawson Dairy, 5 miles north of Albuquerque: *Thomomys bottae connectens.*

Catron.—Glenwood, on Rio San Francisco, Mogollon Mountains: *Citellus variegatus juglans.*

S. A. Creek, 10 miles northwest of Luna: *Canis lupus mogollonensis.*

Willow Creek, Gilita River, Mogollon Mountains: *Clethrionomys gapperi limitis.*

Chaves.—Roswell: *Cratogeomys castanops lacrimalis.*

Roswell, 40 miles northwest of: *Dipodomys spectabilis baileyi.*

Colfax.—Rayado Canyon: *Sciurus fremonti neomexicanus.*

De Baca.—Fort Sumner: *Sylvilagus audubonii neomexicanus.*

Dona Ana.—Armstrongs Lake, Mesilla Valley: *Mustela frenata neomexicana.*

Baird's Ranch, eastern side of San Andres Mountains: *Vulpes macrotis neomexicana.*

Kenzin, lava beds near: *Perognathus intermedius rupestris.*

Eddy.—Carlsbad Cave, near, Carlsbad Caverns National Monument: *Thomomys pectoralis.*

Eddy, near Carlsbad: *Perognathus merriami gilvus; Ondatra zibethicus ripensis.*

Grant.—Cactus Flat, 20 miles north of Cliff: *Sylvilagus audubonii cedrophilus.*

Fort Webster, Gila River, near Santa Rita: *Eutamias dorsalis dorsalis.*

Granite Gap: *Sitomys rowleyi pinalis.*

Santa Rita, old copper mines near: *Euarctos americanus amblyceps; Ursus horriaeus.*

Guadalupe.—Santa Rosa: *Pipistrellus hesperus santarosae; Dipodomys ordii medius.*

Hidalgo.—No exact locality, southwest corner: *Neotoma intermedia angusticeps.*

Animas Peak, Animas Mountains: *Thomomys umbrinus emotus.*

Camp Apache, Big Hachita [Hatchet] Mountains: *Perognathus obscurus; Peromyscus eremicus anthonyi.*

Carrizalillo Mountains, near Mexican boundary monument No. 31: *Sylvilagus rigidus.*

Dog Mountains, summit of: *Odocoileus hemionus crooki.*

Dog Spring: *Pipistrellus hesperus maximus.*

Gray Ranch, Animas Valley: *Thomomys baileyi mearnsi.*

Mexican boundary monument No. 40, near: *Sigmodon minimus minimus.*

West Fork of Playas Valley, near Mexican boundary monument No. 63: *Lepus gaillardi gaillardi.*

Lincoln.—Carrizozo, 4 miles west of: *Neotoma mexicana atrata.*

Corona: *Thomomys bottae actuosus.*

French's Ranch, 12 miles northwest of Carrizozo: *Citellus variegatus tularosae.*

Malpais, 3½ miles west of Carrizozo: *Peromyscus nasutus griseus.*

Malpais Spring, Malpais lava beds near Carrizozo: *Neotoma albigula melas.*

Ruidoso: *Thomomys bottae ruidosae; Onychomys leucogaster ruidosae.*

Ruidoso, White Mountains near: *Myotis baileyi.*

UNITED STATES—Continued

New Mexico—Continued

Ruidoso Creek, Forks of: *Tamiasciurus hudsonicus lychnuchus.*

Ruidoso Creek, 6 miles below Ruidoso: *Castor canadensis mexicanus.*

McKinley.—Chuska Mountains: *Sciurus aberti chuscensis.*

Fort Wingate: *Peromyscus truei truei.*

Wingate: *Vespertilio nitidus henshawii; Cynomys gunnisoni zuniensis.*

Mora.—Hall Peak, at south end of Cimarron Mountains: *Sciurus aberti mimus; Thomomys bottae cultellus.*

Mora River, near Mora: *Odocoileus macrotis.*

Otero.—Cloudcroft: *Sorex obscurus neomexicanus.*

Cook Ranch, ½ mile west of Tularosa: *Thomomys baileyi tularosae.*

Elk Valley, Mescalero Indian Reservation, Sacramento Mountains: *Citellus tridecemlineatus hollisteri.*

Malpais Spring, 15 miles west of Three Rivers: *Perognathus intermedius ater.*

Peñasco Creek, Sacramento Mountains, 12 miles east of Cloudcroft: *Eutamias minimus atristriatus.*

Tularosa, 9 miles west of: *Geomys arenarius brevirostris.*

White Sands, 12 miles southwest of Alamogordo: *Perognathus apache gypsi.*

White Sands, 10 miles west of Point of Sands, White Sands National Monument: *Neotoma micropus leucophaea.*

Rio Arriba.—Espanola: *Thomomys bottae pervagus; Zapus luteus luteus.*

Lake La Jara, Jicarilla Apache Indian Reservation: *Thomomys bottae apache.*

Sandoval.—Goat Peak at head of Santa Clara Peak, Jemez Mountains: *Ochotona princeps nigrescens.*

San Juan.—Aztec: *Microtus pennsylvanicus aztecus.*

Blanco: *Dipodomys spectabilis clarencei.*

Chuska Mountains: *Neotoma mexicana inopinata.*

Laplata: *Reithrodontomys megalotis aztecus.*

Santa Fe.—Pecos Baldy [Baldy Peak]: *Ochotona princeps incana.*

Sierra.—Las Palomas, on Rio Grande: *Thomomys bottae opulentus.*

Las Palomas, 7 miles north of, at hot springs: *Sigmodon hispidus goldmani.*

Socorro.—Magdalena Mountains, Copper Canyon: *Eutamias cinereicollis cinereus.*

Rio Grande, 51 miles south of Albuquerque (near Bernardo): *Sigmodon minimus woodi.*

San Pedro: *Eutamias quadrivittatus gracilis.*

Socorro: *Zapus luteus australis.*

Taos.—Twining: *Clethrionomys gapperi gauti.*

Twining, 5 miles south of, Taos Mountains: *Myotis volans interior.*

Twining, 5 miles south of, west base of Wheeler Peak: *Marmota flaviventris obscura.*

Torrance.—Tajique, near summit of Manzano Mountains: *Sylvilagus floridanus cognatus.*

Union.—Clapham: *Onychomys leucogaster arcticeps.*

Valencia.—Bill Porter's Ranch, 8 miles southeast of Paxton: *Thomomys bottae morulus.*

Cebolleta (Seboyeta Post Office), ½ mile north of: *Thomomys bottae paguatae.*

Mount Taylor, canyon on, 12 miles east of San Mateo: *Ursus perturbans.*

Mount Taylor, 6 miles northeast of summit of, near Fernandez summer camp: *Thomomys talpoides taylori.*

San Mateo, 1½ miles southwest of: *Thomomys bottae planorum.*

Shuman's Ranch, 30 miles south of Grants: *Thomomys bottae collis.*

New York

No exact locality: *Lasiurus borealis borealis; Vespertilio noveboracensis; Peromyscus leucopus noveboracensis; Mustela pusilla; Lynx rufus rufus.*

Long Island: *Pitymys pinetorum scalopsoides.*

Whitestown, north of, probably western Adirondack region: *Alces alces americanus.*

COUNTY:

Essex.—Beedes (sometimes called Keene Heights): *Sorex dispar.*

Greene.—Hunter Mountain, Catskill Mountains: *Glaucomys sabrinus macrotis.*

Madison.—Peterboro: *Sorex fumeus fumeus; Sitomys americanus canadensis.*

Nassau.—Long Island Sound, near Sands Point: *Phoca vitulina concolor.*

Suffolk.—Great Gull Island, off Long Island: *Microtus nesophilus.*

Warren.—Lake George: *Pipistrellus subflavus obscurus.*

UNITED STATES—Continued

New York—Continued

Westchester.—Merrills Corners, 4 miles east of Ossining: *Tamias striatus fisheri.*

North Carolina

COUNTY:

Buncombe.—Weaverville: *Mustela noveboracensis notius.*

Carteret.—Beaufort Harbor: *Mesoplodon mirus.*

Currituck.—Currituck: *Microtus pennsylvanicus nigrans.*

Macon.—Highlands: *Tamiasciurus hudsonicus abieticola.*

Mitchell.—Roan Mountain: *Blarina brevicauda churchi; Peromyscus maniculatus nubiterrae; Clethrionomys gapperi carolinensis; Napaeozapus insignis roanensis.*

Stokes.—Dan River, near Danbury: *Castor canadensis carolinensis.*

Swain.—Smokemont, about 5 miles north of, Great Smoky Mountains: *Microtus chrotorrhinus carolinensis.*

Wake.—Raleigh: *Sylvilagus floridanus mallurus.*

North Dakota

COUNTY:

Bottineau.—Bottineau, Turtle Mountains: *Pedomys ochrogaster minor.*

Burleigh.—Apple Creek, 7 miles east of Bismarck: *Castor canadensis missouriensis.*

McHenry.—Upham, 8 miles east of: *Tamiasciurus hudsonicus pallescens.*

Mountrail.—White Earth River: *Odocoileus virginianus dacotensis.*

Oliver.—Mandan Indian Village, near Fort Clark: *Onychomys leucogaster leucogaster.*

Minnetaree Village, now Old Fort Clark, about 6 miles south of Stanton: *Thomomys talpoides rufescens.*

Pembina.—Pembina: *Sorex pachyurus; Arvicola cinnamonea.*

Rolette.—Mill Lake, Turtle Mountains: *Lepus bishopi.*

Traill.—Portland: *Clethrionomys gapperi loringi.*

Williams.—Fort Buford: *Lagurus curtatus pallidus.*

Fort Union, near Buford: *Perognathus fasciatus fasciatus; Onychomys leucogaster missouriensis; Gulo bairdi.*

Ohio

COUNTY:

Belmont.—Cat Run: *Zapus hudsonius rafinesquei.*

Cuyahoga.—Hunting Valley: *Sorex cinereus ohioensis.*

Erie.—No exact locality: *Myotis subulatus leibii.*

Geauga.—Chesterfield Caves, Chester Township: *Tamias striatus rufescens.*

Hamilton.—Cincinnati: *Tamias striatus ohionensis.*

Lake.—Holden Arboretum, Kirtland Township, Lake County, and Chardon Township, Geauga County (county line bisects type locality): *Blarina brevicauda kirtlandi.*

Lawrence.—Symmes Creek, 2 miles north of Chesapeake: *Pedomys ochrogaster ohionensis.*

Seneca.—Bettsville: *Cryptotis parva classon; Zapus hudsonius brevipes.*

Oklahoma

COUNTY:

Adair.—Stilwell: *Scalopus aquaticus aereus; Tamias striatus venustus; Peromyscus bellus; Pitymys pinetorum nemoralis.*

Stilwell, Boston Mountains: *Sylvilagus floridanus alacer.*

Canadian.—Fort Reno: *Onychomys leucogaster breviauritus.*

Cimmarron.—North Beaver Creek (North Canadian River): *Neotoma micropus canescens.*

Cleveland.—Noble: *Perognathus hispidus maximus.*

South Canadian River, 2¼ miles south of Norman: *Dipodomys ordii oklahomae.*

Harper.—Beaver (North Canadian) River, one of sources of: *Dipodomys ordii richardsoni.*

Murray.—Dougherty: *Blarina brevicauda hulophaga; Sylvilagus telmalemonus; Reithrodontomys chrysotis.*

Muskogee.—Fort Gibson: *Geomys bursarius dutcheri.*

Osage.—Okesa: *Neotoma floridana osagensis.*

Payne.—Cimarron River, about 100 miles west of Fort Gibson: *Canis latrans frustror.*

Woods.—Alva: *Scalopus aquaticus intermedius.*

UNITED STATES—Continued

Oklahoma—Continued

Alva, 3 miles west of: *Neotoma macropus surberi.*

White Horse Spring: *Cynomys pyrrotrichus.*

Oregon

Columbia River, no exact locality: *Corynorhinus rafinesquii townsendii.*

Columbia River, banks of, below The Dalles, in Oregon or Washington: *Canis lupus fuscus.*

Columbia River, banks of: *Citellus beecheyi douglasii.*

North Pacific Ocean, approximately 500 miles off mouth of Columbia River: *Lissodelphis borealis.*

Willamette River Valley: *Odocoileus virginianus leucurus.*

COUNTY:

Baker.—Homestead: *Citellus lateralis connectens.*

Pine Creek, head of, near Cornucopia, Wallowa Mountains: *Ochotona princeps jewetti.*

Clackamas.—Ely, near Oregon City, Willamette Valley: *Thomomys monticola oregonus.*

Mount Hood: *Aplodontia rufa rufa.*

Clatsop.—Astoria, mouth of Columbia River: *Sorex trowbridgii trowbridgii.*

Astoria: *Sorex obscurus bairdi; Sorex bendirii palmeri; Microtus oregoni oregoni.*

Netul River (now Lewis and Clark River) near Astoria: *Lynx rufus fasciatus.*

Columbia.—Lower Columbia River, near lower mouth Willamette River: *Eutamias townsendii townsendii.*

St. Helens, near: *Glaucomys sabrinus oregonensis.*

Coos.—Marshfield: *Eutamias townsendii littoralis; Phenacomys longicaudus.*

Crook.—Crooked River, 12 miles south and 6 miles east of Prineville: *Peromyscus truei preblei.*

Curry.—Gold Beach, near mouth of Rogue River: *Thomomys monticola helleri; Peromyscus perimekurus.*

Pistol River (town), 1½ miles south of: *Thomomys bottae detumidus.*

Deschutes.—Farewell Bend, Deschutes River: *Thomomys monticola nasicus.*

Douglas.—Drew, 5 miles southeast of: *Canis latrans umpquensis.*

Fort Umpqua, mouth of Umpqua River: *Sorex pacificus pacificus; Neotoma cinerea fusca.*

Gardiner: *Neotoma fuscus apicalis.*

Roseburg: *Spilogale gracilis latifrons.*

Grant.—Canyon City, 12 miles south of: *Lepus americanus oregonus.*

Harney.—Malheur Lake: *Bison bison oregonus.*

Narrows, Malheur Lake: *Dipodomys microps preblei.*

Wild Horse Creek, 4 miles northwest of Lake Alvord, Alvord Desert: *Microdipodops megacephalus oregonus.*

Hood River.—Mount Hood: *Marmota flaviventris flaviventris; Sciurus douglasii cascadensis.*

Jackson.—Ashland: *Sorex trigonirostris.*

Brownsboro: *Dipodomys heermanni gabrielsoni.*

Prospect, upper Rogue River Valley: *Clethrionomys occidentalis obscurus; Zapus trinotatus pacificus.*

Siskiyou: *Mustela frenata saturata.*

Josephine.—Grants Pass, Rogue River Valley: *Thomomys bottae leucodon; Neotoma fuscipes monochroura; Bassariscus flavus oregonus; Mustela frenata oregonensis.*

Klamath.—Anna Creek, near Crater Lake, Mount Mazama: *Thomomys monticola mazama.*

Crater Lake, Mount Mazama: *Scapanus alpinus; Clethrionomys occidentalis mazama; Zapus trinotatus montanus.*

Fort Klamath: *Scapanus latimanus dilatus; Eutamias amoenus amoenus; Glaucomys sabrinus klamathensis; Mephitis mephitis major.*

Fort Klamath, mountains near: *Citellus lateralis chrysodeirus.*

Glacier Peak, Crater Lake: *Microtus oregoni bairdi.*

Swan Lake Valley, Klamath Basin: *Citellus beldingi oregonus.*

Williamson River, near, 18 miles southeast of Fort Klamath: *Sorex bendirii bendirii.*

Wood River, head of, near Fort Klamath: *Lepus americanus klamathensis.*

Lake.—Hart Mountain, Warner Mountains: *Antilocapra americana oregona.*

Warner Mountains: *Zapus princeps major.*

UNITED STATES—Continued

Oregon—Continued

Lane.—Florence: *Ondatra zibethicus occipitalis.*

Seaton (Mapleton), near mouth Umpqua River (head tide water on Siuslaw River): *Thomomys monticola niger.*

Lincoln.—Newport, south of Yaquina Bay: *Aplodontia rufa pacifica.*

Yaquina Bay: *Sorex yaquinae.*

Malheur.—Ironside: *Eutamias amoenus propinquus; Onychomys leucogaster fuscogriseus; Microtus curtatus artemisiae; Mustela frenata effera.*

Jordan Valley: *Sorex preblei.*

Owyhee River, near mouth of North Fork: *Procyon lotor excelsus.*

Vale, Malheur River Valley: *Sylvilagus nuttallii nuttallii; Citellus townsendii vigilis.*

Marion.—Pernilia Lake, west base Mount Jefferson, Cascade Range: *Sorex obscurus permiliensis; Ochotona princeps fumosa.*

Multnomah.—Columbia River, banks of probably near Portland: *Thomomys bulbivorus.*

Wappatoo (Sauvie) Island, Columbia River, near mouth of Willamette River: *Microtus townsendii townsendii.*

Polk.—McCoy, Willamette Valley: *Microtus montanus canicaudus.*

Tillamook.—Foley Creek, tributary to Nehalem River: *Castor canadensis idoneus.*

Tillamook: *Thomomys monticola hesperus; Mustela frenata altifrontalis.*

Tillamook, 5 miles southeast of: *Phenacomys silvicola.*

Walker's Ranch, Pleasant Valley, 8 miles south of Tillamook: *Microtus longicaudus abditus.*

Umatilla.—Umatilla, mouth of Umatilla River, Plains of Columbia: *Dipodomys ordii columbianus.*

Union.—Catherine Creek, 7 miles east of Telocaset, Wallowa Mountains: *Thomomys talpoides wallowa.*

Elgin, Blue Mountains: *Zapus princeps oregonus.*

Wallowa.—Wallowa Lake: *Citellus columbianus ruficauda.*

Wasco.—Antelope: *Citellus townsendii canus.*

The Dalles: *Sciurus griseus griseus; Thomomys talpoides quadratus; Perognathus monticola; Perognathus parvus parvus.*

Washington.—Beaverton: *Sylvilagus bachmani ubericolor.*

Pennsylvania

No exact locality: *Procyon lotor lotor; Felis concolor couguar; Bison americanus pennsylvanicus.*

Eastern Pennsylvania, no exact locality: *Condylura cristata cristata.*

Pennsylvania, westward of Allegany [Allegheny] ridge: *Sciurus carolinensis pennsylvanicus.*

COUNTY:

Berks.—The Pinnacle: *Clethrionomys gapperi rupicola.*

Blair.—Frankstown Cave, near Hollidaysburg: *Sorex frankstounensis.*

Crawford.—Pymatuning Swamp, 4 miles west of Linesville: *Clethrionomys gapperi paludicola.*

Cumberland.—Carlisle, cave near, or near Harrisburg, Dauphin County: *Neotoma magister.*

South Mountain, near top of, some 6 miles from Pine Grove, Lewis' Cave: *Neotoma pennsylvanica.*

Dauphin.—Blue Mountains, northeast of Harrisburg: *Lepus americanus virginianus.*

Lycoming.—Drury's Run, a branch of, tributary of west branch of Susquehanna River: *Sorex palustris fimbripes.*

Philadelphia.—Philadelphia: *Scalopus aquaticus aquaticus; Eptesicus fuscus fuscus; Lasiurus cinereus cinereus.*

Philadelphia, meadows below: *Microtus pennsylvanicus pennsylvanicus.*

Philadelphia, near: *Zapus hudsonius americanus.*

Union.—No exact locality: *Ursus arctos schwenki.*

Washington.—Beallsville, near: *Mustela rixosa allegheniensis.*

Rhode Island

COUNTY:

Newport.—Block Island: *Microtus provectus.*

South Carolina

No exact locality: *Spilogale putorius; Lutra canadensis lataxina.*

Eastern South Carolina, no exact locality: *Blarina brevicauda carolinensis.*

Near coast, no exact locality: *Sylvilagus palustris palustris.*

UNITED STATES—Continued

South Carolina—Continued

Oak forests, no exact locality: *Peromyscus nuttalli aureolus.*

South Carolina, probably: *Sciurus cinereus; Sciurus vulpinus.*

Southern South Carolina, no exact locality: *Sciurus niger niger.*

Upper Savannah River, no exact locality: *Tamias striatus striatus.*

COUNTY:

Beaufort.—Hilton Head Island: *Procyon lotor solutus; Odocoileus virginianus hiltonensis.*

Hunting Island: *Odocoileus virginianus venatorius.*

Charleston.—Bull Island: *Odocoileus virginianus taurinsulae.*

Charleston: *Sciurus capistratus; Reithrodontomys humulis humulis; Ziphius semijunctus.*

Georgetown.—Hume Plantation, swamp of Santee River (Cat Island, mouth of Santee River): *Sorex longirostris longirostris.*

South Dakota

Upper Missouri River, probably badlands between Cheyenne and White Rivers: *Ovis canadensis auduboni.*

COUNTY:

Clay.—Vermillion: *Perognathus flavescens perniger.*

Custer.—Custer, Black Hills: *Marmota flaviventris dacota; Citellus tridecemlineatus olivaceus; Neotoma grangeri; Microtus pennsylvanicus insperatus; Microtus longicaudus longicaudus; Mustela frenata alleni.*

Custer, 3 miles north of, Black Hills: *Clethrionomys gapperi brevicaudus.*

Folsom: *Taxidea taxus dacotensis.*

Squaw Creek, Black Hills: *Tamiasciurus hudsonicus dakotensis.*

Fall River.—Corral Draw, southeastern base of Black Hills: *Neotoma cinerea rupicola.*

Sheep Mountain, Big Bad Lands: *Eutamias minimus cacodemus.*

Pennington.—Hill City, Black Hills: *Sylvilagus nuttallii grangeri.*

Roberts.—Lake Traverse: *Onychomys leucogaster pallidus.*

Stanley.—Fort Pierre: *Pedomys ochrogaster haydenii.*

Union.—Big Sioux River, near mouth of: *Odocoileus hemionus hemionus.*

Tennessee

COUNTY:

Marion.—Nickajack Cave, near Shellmound: *Myotis grisescens.*

Obion.—Samburg, Reelfoot Lake: *Peromyscus gossypinus mississippiensis.*

Texas

No exact locality: *Bassariscus astutus flavus; Mephitis mephitis varians.*

Brazos River, no exact locality: *Sigmodon hispidus texianus.*

Guadalupe River, no exact locality: *Pecari angulatus angulatus.*

Llano Estacado, near border of New Mexico: *Taxidea taxus berlandieri.*

Western Texas, no exact locality: *Lepus californicus texianus.*

COUNTY:

Aransas.—Marano Mill, ½ mile west of: *Blarina brevicauda plumbea.*

Mustang Island, 14 miles southwest of Port Aransas: *Dipodomys ordii largus.*

Rockport: *Scalopus aquaticus alleni; Geomys bursarius attwateri; Oryzomys palustris texensis.*

Bexar.—San Antonio: *Myotis velifer incautus; Reithrodontomys montanus griseus; Peromyscus maniculatus pallescens.*

San Antonio, 15 miles southwest of, Watson's Ranch: *Perognathus mearnsi; Reithrodontomys laceyi.*

San Antonio, 18 miles south of, Medina River: *Sylvilagus aquaticus attwateri.*

Brazoria.—Angleton, 20 miles west of: *Lutra canadensis texensis.*

Austin Bayou, near Alvin: *Reithrodontomys humulis merriami.*

Bernard Creek, near Columbia: *Baiomys taylori subater.*

Brazos.—College Station: *Scalopus aquaticus cryptus.*

Brewster.—Alpine: *Citellus spilosoma marginatus; Thomomys baileyi spatiosus.*

Boquillas, 4 miles west of: *Thomomys bottae limitaris.*

Chisos Mountains: *Sigmodon ochrognathus ochrognathus.*

Pinnacle Spring, Johnson's Ranch, Big Bend of Rio Grande: *Perognathus collis popei.*

Santa Helena Canyon, mouth of, Big Bend of Rio Grande: *Dipodomys ordii attenuatus.*

UNITED STATES—Continued

Texas—Continued

Briscoe.—Quitaque, old "F" Ranch headquarters: *Sylvilagus floridanus llanensis.*

Tule Canyon: *Peromyscus nasutus comanche.*

Cameron.—Brownsville: *Didelphis marsupialis texensis; Sylvilagus simplicianus; Tatu novemcinctus texanum; Liomys irroratus texensis; Perognathus merriami merriami; Oryzomys couesi aquaticus; Reithrodontomys fulvescens intermedius; Vesperimus mearnsii; Conepatus leuconotus texensis; Felis limitis.*

Padre Island: *Geomys personatus personatus; Dipodomys ordii compactus.*

Santa Rosa stage station: *Dipodomys ordii sennetti.*

The Tanks, 12 miles from Point Island, Padre Island: *Citellus spilosoma annectens.*

Clay.—Henrietta: *Dipodomys elator.*

Colorado.—Cummings Creek: *Castor canadensis texensis.*

Concho.—No exact locality: *Onychomys leucogaster longipes.*

Cooke.—Gainesville: *Citellus tridecemlineatus texensis; Perognathus hispidus spilotus.*

Culberson.—McKittrick Canyon, Guadalupe Mountains: *Thomomys bottae guadalupensis.*

De Witt.—Cuero: *Geomys bursarius ammophilus.*

Dimmit.—Carrizo Springs: *Geomys personatus streckeri.*

Donley.—Clarendon, 8 miles west of: *Geomys bursarius major.*

Duval.—San Diego: *Baiomys taylori taylori.*

El Paso.—El Paso: *Antrozous pallidus pallidus; Sylvilagus audubonii minor; Citellus spilosoma arens; Citellus interpres; Geomys arenarius arenarius; Perognathus flavus flavus; Dipodomys merriami ambiguus; Dipodomys ordii ordii; Peromyscus eremicus arenarius.*

El Paso, arid foothills 1 mile northeast of: *Thomomys bottae lachuguilla.*

Fort Bliss, near, about 2 miles above El Paso: *Notiosorex crawfordi crawfordi.*

Franklin Mountains, near El Paso: *Peromyscus boylii penicillatus.*

Guadalupe Mountains: *Eutamias cinereicollis canipes; Microtus mexicanus guadalupensis; Ovis canadensis texianus.*

Rio Grande, about 6 miles above El Paso: *Peromyscus leucopus tornillo; Onychomys torridus arenicola; Sigmodon hispidus pallidus.*

Galveston.—Texas City, 1 mile north of: *Geomys bursarius terricolus.*

Grimes.—Kurten, 5 miles east of: *Geomys bursarius brazensis.*

Hardin.—Big Thicket, 7 miles northeast of Sour Lake: *Conepatus mesoleucus telmalestes.*

Sour Lake: *Glaucomys volans texensis.*

Harris.—Clear Creek, Galveston Bay: *Geomys bursarius sagittalis.*

Hudspeth.—Bat Cave, 1½ miles west of, Sierra Diablo: *Thomomys bottae scotophilus.*

Fort Hancock: *Lepus texianus griseus; Perognathus penicillatus eremicus.*

Sierra Blanca (Railway Station): *Thomomys baileyi baileyi.*

Jeff Davis.—Davis Mountains: *Sylvilagus floridanus robustus; Ursus texensis texensis.*

Limpia Canyon, 1 mile north of Fort Davis, Davis Mountains: *Thomomys bottae limpiae; Perognathus collis.*

Limpia Canyon, 16 miles north of Fort Davis: *Neotoma albigula robusta.*

Limpia Creek, head of, Davis Mountains: *Thomomys bottae texensis.*

Jefferson.—Fannett, 7 miles southwest of: *Geomys bursarius ludemani.*

Kerr.—No exact locality: *Mustela frenata texensis.*

Guadalupe River, north fork of, 15 miles west of Japonica: *Thomomys bottae confinalis.*

Lacey Ranch, near Kerrville: *Peromyscus pectoralis laceianus; Neotoma floridana attwateri.*

Turtle Creek: *Peromyscus boylii attwateri; Peromyscus boylei laceyi.*

Kinney.—Fort Clark (Brackettville): *Mormoops megalophylla senicula; Lepus californicus merriami; Sylvilagus floridanus caniclunis; Citellus mexicanus parvidens; Geomys personatus fuscus; Peromyscus canus; Odocoileus virginianus texanus.*

Las Moras Creek, Fort Clark: *Procyon lotor fuscipes.*

Kleberg.—Santa Gertrudis, 45 miles southwest of Corpus Christi: *Canis latrans texensis.*

UNITED STATES—Continued

Texas—Continued

Leon.—Centerville, 13 miles east of: *Scalopus aquaticus nanus.*
Liberty.—Liberty, 2 miles east of: *Geomys bursarius pratincolus.*
Llano.—Llano: *Geomys bursarius llanensis.*
  Packsaddle Mountain: *Citellus variegatus buckleyi.*
Mason.—Mason: *Geomys bursarius texensis; Spilogale leucoparia; Conepatus mesoleucus mearnsi.*
  Mason, probably vicinity of: *Peromyscus leucopus texanus.*
Matagorda.—Indianola, Matagorda Bay: *Spilogale indianola.*
Maverick.—Eagle Pass: *Cratogeomys castanops angusticeps; Felis wiedii cooperi.*
  San Pedro, near Eagle Pass: *Urocyon cinereoargenteus texensis.*
Medina.—Castroville, vicinity of, on headwaters of Medina River: *Lynx rufus texensis.*
  Ney Cave, 20 miles north of Hondo: *Tadarida texana.*
Nueces.—Corpus Christi: *Sylvilagus floridanus chapmani; Taxidea taxus littoralis.*
  Flour Bluff, 11 miles southeast of Corpus Christi: *Geomys personatus maritimus.*
  Nueces Bay, south side of: *Geomys personatus fallax.*
Oldham.—Tascosa: *Cratogeomys castanops perplanus.*
Presidio.—No exact locality: *Scalopus aquaticus texanus.*
  Lloyd Ranch, 35 miles south of Marfa: *Thomomys bottae pervarius.*
Travis.—Austin, 15 miles west of: *Canis niger rufus.*
Upton.—Rankin, 10 miles south of: *Canis lupus monstrabilis.*
Val Verde.—Devils River: *Sciurus niger limitis.*
Walker.—Huntsville: *Peromyscus leucopus brevicaudus.*
Webb.—Bruni Ranch, near Bruni: *Felis concolor stanleyana.*
  Oilton, 4 miles southeast of: *Geomys personatus megapotamus.*
Wheeler.—Mobeetie, near: *Perognathus flavescens copei.*

Utah

Wasatch Mountains bordering Great Salt Lake: *Vulpes fulva macroura.*
Utah or Nevada, no exact locality: Simpson's route between Camp Floyd, a few miles west of Utah Lake, Utah, and Carson City, Nevada: *Neotoma lepida lepida.*
COUNTY:
Beaver.—Beaver River, mouth of canyon of, about 3 miles from Beaver: *Sorex merriami leucogenys.*
  Beaver Valley: *Eutamias lectus.*
  Brigg's Meadows, 5 miles west of Puffer Lake: *Ochotona princeps cinnamomea; Marmota flaviventris engelhardti; Eutamias quadrivittatus adsitus.*
  Desert Range Experiment Station, 50 miles west of Milford: *Onychomys leucogaster aldousi.*
  Wah Wah Springs, 30 miles west of Milford: *Thomomys bottae wahwahensis.*
Box Elder.—Dolphin Island, Great Salt Lake: *Dipodomys ordii cineraceus; Dipodomys microps russeolus.*
  Fehlman Ranch, 3 miles north of Kelton: *Thomomys bottae aureiventris.*
  Gunnison Island, Great Salt Lake: *Dipodomys microps alfredi; Peromyscus maniculatus gunnisoni.*
  Kelton: *Eutamias minimus pictus; Perognathus parvus olivaceus; Dipodomys microps bonnevillei.*
  Lynn Canyon: *Castor canadensis pallidus.*
  Pine Canyon, 17 miles northwest of Kelton, Raft River Mountains: *Thomomys talpoides gracilis; Zapus princeps cinereus.*
Carbon.—Price, 1½ miles north of: *Dipodomys ordii sanrafaeli.*
Daggett.—Manila, 19 miles south of: *Zapus princeps utahensis.*
Davis.—Antelope Island, Great Salt Lake: *Thomomys bottae nesophilus.*
Duchesne.—Antelope Canyon, 20 miles southeast of Duchesne: *Peromyscus crinitus doutti.*
  Duchesne River, 10 miles northwest of Duchesne: *Castor canadensis duchesnei.*
  Red Creek, 2 miles north of Fruitland: *Dipodomys ordii uintensis.*
Garfield.—Deer Lake, 2 miles west of: *Ochotona princeps utahensis.*
  Mount Ellen, east slope, of, Henry Mountains: *Thomomys bottae dissimilis.*
  Panguitch, 1 mile south of: *Dipodomys ordii panguitchensis.*

UNITED STATES—Continued

Utah—Continued

Grand.—Castle Valley, about 15 miles northeast of Moab: *Neotoma albigula brevicauda.*

Rock Canyon Corral, 5 miles southeast of Valley City; *Neotoma lepida sanrafaeli.*

Iron.—Brian Head, Parowan Mountains: *Ochotona princeps fuscipes; Thomomys talpoides parowanensis.*

Buckskin Valley: *Cynomys parvidens.*

Juab.—Fish Springs: *Thomomys bottae bonnevillei.*

Mount Nebo, Skyline Drive east of: *Tamiasciurus hudsonicus wasatchensis.*

Nephi: *Perognathus olivaceus amoenus.*

Trout Creek: *Dipodomys ordii celeripes.*

Kane.—Kanab: *Onychomys leucogaster melanophrys.*

Millard.—Clear Lake, east side of: *Thomomys bottae convexus.*

Oak Creek Canyon, 6 miles east of Oak City: *Thomomys bottae tivius.*

Pine Valley: *Microdipodops megacephalus paululus.*

Scipio: *Thomomys bottae contractus.*

Swasey Spring, House Mountains: *Thomomys bottae sevieri.*

Salt Lake.—Millcreek Canyon, ½ mile above lower power station: *Peromyscus boylii utahensis.*

Parleys Canyon, near Barclay, Wasatch Mountains: *Eutamias minimus consobrinus.*

Red Butte Canyon, Fort Douglas: *Castor canadensis rostralis.*

San Juan.—Bluff City (Bluff): *Thomomys bottae aureus; Peromyscus crinitus auripectus.*

Hart's Draw, north slope of Blue Mountains, 20 miles northwest of Monticello: *Canis lupus youngi.*

Johnson Creek, 14 miles north of Blanding: *Thomomys talpoides durranti.*

Kigalia Ranger Station, 1 mile east of: *Sciurus aberti navajo.*

Noland's Ranch, on north side of San Juan River, 1½ miles above Four Corners: *Peromyscus boylii rowleyi; Canis latrans estor.*

Rainbow Bridge: *Perognathus longimembris arcus.*

Soldier Spring, Navajo Mountain: *Microtus mexicanus navaho.*

Sanpete.—Baldy Ranger Station, 1 mile northeast of, Manti National Forest: *Ochotona princeps moorei.*

Fairview, 1 mile south of: *Thomomys talpoides moorei.*

Manti: *Thomomys bottae levidensis.*

Salina Creek, north fork of, about 10 miles southeast of Mayfield: *Ursus utahensis.*

Sevier.—Richfield: *Thomomys bottae lenis.*

Seven Mile Flat, 5 miles north of Fish Lake, Fish Lake Plateau: *Thomomys talpoides levis.*

Summit.—Bear River, near head of east fork, Uinta Mountains: *Ochotona princeps uinta.*

Black Fork, north base of Gilbert Peak, Uinta Mountains: *Eutamias quadrivittatus umbrinus; Thomomys talpoides uinta.*

Kamas, 12 miles east of: *Glaucomys sabrinus lucifugus.*

Park City, Wasatch Mountains: *Citellus lateralis castanurus.*

Tooele.—Bird Island, Great Salt Lake: *Dipodomys ordii marshalli.*

Carrington Island, Great Salt Lake: *Dipodomys microps subtenuis; Neotoma lepida marshalli.*

Old Lincoln Highway, 18 miles southwest of Orr's Ranch, Skull Valley: *Thomomys bottae robustus; Dipodomys ordii pallidus; Microdipodops megacephalus leucotis.*

Settlement Creek, Oquirrh Mountains: *Thomomys talpoides oquirrhensis.*

South Willow Creek, Stansbury Mountains: *Thomomys bottae stansburyi.*

Stansbury Island, Great Salt Lake: *Thomomys bottae minimus; Perognathus parvus plerus; Reithrodontomys megalotis ravus; Peromyscus crinitus pergracilis; Onychomys leucogaster utahensis.*

Uintah.—Kennedy's Hole, Uncompahgre Indian Reservation, 20 miles northeast of Ouray: *Citellus tridecemlineatus parvus.*

Ouray, 1 mile southeast of, confluence of Green and White Rivers: *Neotoma cinerea macrodon.*

Paradise Park, 45 miles northwest of Vernal: *Clethrionomys gapperi uintaensis.*

Vernal–Manila Highway, 19 miles north of Vernal: *Thomomys talpoides ravus.*

Utah.—Camp Floyd, near Fairfield: *Citellus townsendii mollis.*

Provo: *Thomomys bottae albicaudatus; Spilogale gracilis saxatilis.*

UNITED STATES—Continued

Utah—Continued

West Canyon, Oquirrh Range: *Microtus montanus nexus.*

Wasatch.—Midway: *Thomomys talpoides wasatchensis.*

Washington.—Beaver Dam Slope, west of Beaver Dam Mountains: *Dipodomys microps woodburyi.*

Diamond Valley, 10 miles north of St. George: *Dipodomys ordii cinderensis.*

Further Water, near, Dixie National Forest, Pine Valley Mountains: *Tamiasciurus hudsonicus dixiensis.*

Pine Valley Mountains, 5 miles east of Pine Valley: *Thomomys bottae birdseyei.*

St. George: *Perognathus longimembris virginis; Perognathus formosus formosus; Onychomys torridus longicaudus; Microtus montanus rivularis; Ondatra zibethicus goldmani.*

Toquerville: *Dipodomys merriami frenatus.*

Zion National Park: *Thomomys bottae planirostris.*

Wayne.—Hanksville: *Thomomys bottae osgoodi.*

Torrey: *Dipodomys ordii fremonti; Microtus montanus amosus.*

Weber.—Fremont Island, Great Salt Lake: *Peromyscus maniculatus inclarus.*

Ogden: *Eutamias dorsalis utahensis; Dipodomys ordii utahensis.*

Ogden, near, Wasatch Mountains: *Citellus variegatus utah.*

Vermont

COUNTY:

Caledonia.—Lyndon: *Blarina brevicauda hooperi.*

Chittenden.—Burlington: *Microsorex hoyi thompsoni; Blarina angusticeps.*

Virginia

No exact locality: *Didelphis marsupialis virginiana; Glaucomys volans volans; Vulpes fulva fulva; Odocoileus virginianus virginianus.*

COUNTY:

Amelia.—Amelia: *Reithrodontomys humulis virginianus.*

Amelia Court House: *Peromyscus nuttalli lewisi.*

Brunswick.—Triplet: *Sigmodon hispidus virginianus.*

Fairfax.—Potomac River, bank of, near Stubblefield Falls: *Microsorex hoyi winnemana.*

Norfolk.—Lake Drummond, Dismal Swamp: *Sorex longirostris fisheri; Blarina telmalestes; Synaptomys cooperi helaletes; Ondatra zibethicus macrodon.*

Norfolk: *Peromyscus nuttalli nuttalli.*

Northampton.—Smith Island: *Sylvilagus floridanus hitchensi.*

Washington

Admiralty Inlet, Puget Sound: *Balaenoptera davidsoni.*

Puget Sound, vicinity of: *Myotis volans longicrus; Phocoena vomerina.*

COUNTY:

Asotin.—Rogersburg: *Antrozous pallidus cantwelli.*

Wickiup Spring, 23 miles west of Anatone: *Eutamias amoenus albiventris.*

Chelan.—Wenatchee: *Thomomys talpoides badius.*

Wenatchee National Forest, east slope of Cascade Mountains: *Ursus chelan.*

Clallam.—Boulder Lake, Olympic Mountains: *Microtus morosus.*

Happy Lake, Olympic Mountains: *Sorex obscurus setosus; Glaucomys sabrinus olympicus; Microtus pumilus; Phenacomys olympicus.*

Johnson's Ranch, Elwha River, Olympic Mountains: *Peromyscus akeleyi.*

Lagune, near Port Angeles: *Mephitis foetulenta.*

Lake Crescent, Olympic Mountains: *Euarctos americanus altifrontalis.*

Lake Sutherland, Olympic Mountains: *Spilogale olympica.*

Sieg's Ranch, Elwha River: *Zapus imperator.*

Soleduck (Sol Duc) River, near head of, Olympic Mountains: *Marmota olympus; Eutamias amoenus caurinus; Thomomys talpoides melanops; Mustela erminea olympica.*

Clark.—Vancouver, vicinity of: *Scapanus townsendii; Eutamias hindei; Lupus gigas.*

Columbia River, near mouth of, probably near Vancouver: *Tamiasciurus douglasii douglasii; Thomomys talpoides douglasii.*

Yacolt, 3½ miles east and 5 miles north of: *Myotis evotis pacificus.*

UNITED STATES—Continued

Washington—Continued

Columbia.—Dayton, 6 miles south-southeast of: *Thomomys talpoides aequalidens.*

Godman Springs, Blue Mountains: *Microtus longicaudus halli.*

Douglas.—Badger Mountains, 8 miles southwest of Waterville: *Thomomys talpoides ericaeus.*

Douglas: *Citellus washingtoni loringi.*

Farmer: *Eutamias minimus griscscens.*

Franklin.—Pasco: *Perognathus parvus columbianus.*

Grant.—Neppel, 1 mile west-southwest of: *Thomomys talpoides devexus.*

The Potholes, 10 miles south of Moses (Neppel) Lake: *Microtus pennsylvanicus kincaidi.*

Grays Harbor.—Aberdeen: *Clethrionomys occidentalis occidentalis.*

Grays Harbor, near: *Martes caurina caurina.*

Quinault Lake: *Aplodontia olympica.*

Jefferson.—Destruction Island: *Sorex trowbridgii destructioni.*

King.—Renton, near Seattle: *Aplodontia rufa grisea.*

Seattle, University of Washington campus: *Neürotrichus gibbsii minor.*

Kittitas.—Blewett Pass, 2 miles south of: *Clethrionomys gapperi cascadensis.*

Cascade Mountains, near Martin Station: *Glaucomys sabrinus fuliginosus.*

Lake Keechelus, Cascade Mountains: *Ochotona princeps brunnescens; Citellus saturatus; Castor canadensis pacificus; Microtus richardsoni arvicuIoides; Procyon lotor pacificus; Martes pennanti pacifica; Lutra canadensis pacifica.*

Yakima River, near head of, Cascade Mountains: *Sorex palustris navigator.*

Klickitat.—Trout Lake: *Mustela erminea gulosa.*

Trout Lake, 5 miles south of: *Thomomys talpoides immunis.*

White Salmon, Gorge of Columbia River: *Thomomys talpoides limosus.*

Mason.—Lake Cushman, Olympic Mountains: *Sorex bendirii albiventer; Microtus longicaudus macrurus; Felis concolor olympus.*

Mount Elaine, near Mount Olympus: *Cervus canadensis roosevelti.*

Mount Ellinor, northwest slope of, Olympic Mountains: *Clethrionomys occidentalis nivarius.*

Shelton, 4 miles north of: *Thomomys talpoides couchi.*

Okanogan.—Conconully, Cascade Range: *Thomomys myops; Microtus montanus canescens.*

Pacific.—Shoalwater (Willapa) Bay: *Sorex vagrans vagrans; Scapanus orarius orarius; Neotoma cinerea occidentalis.*

Cape Disappointment: *Odocoileus hemionus columbianus.*

Pierce.—Fort Steilacoom, old: *Peromyscus maniculatus austerus.*

Mount Rainier: *Marmota caligata cascadensis; Microtus oregoni cantwelli.*

Nisqually River, mouth of: *Clethrionomys pygmaeus.*

Ohanapecosh River, Mount Rainier National Park: *Felis concolor oregonensis.*

Owyhigh Lake, Mount Rainier: *Thomomys talpoides shawi.*

Paradise Creek, south side of Mount Rainier: *Aplodontia rufa rainieri.*

Roy, prairie 2 miles south of: *Thomomys talpoides glacialis.*

Steilacoom, Puget Sound: *Lepus americanus washingtonii.*

Tacoma, 6 miles south of: *Thomomys talpoides tacomensis.*

White River [Naches] Pass: *Neürotrichus gibbsii gibbsii.*

San Juan.—San Juan Island, Friday Harbor: *Peromyscus maniculatus hollisteri.*

Shaw Island, Neck Point: *Microtus townsendii pugeti.*

Skagit.—Hamilton: *Myotis yumanensis saturatus.*

Mount Vernon, Skagit Valley: *Mustela erminea streatori.*

Skagit Valley: *Synaptomys truei.*

Skamania.—Klickitat Pass, Cascade Mountains: *Eutamias townsendii cooperi.*

Trout Lake, near, south base of Mount Adams: *Vulpes fulva cascadensis; Mustela frenata washingtoni; Mephitis mephitis notata; Lynx rufus pallescens.*

Spokane.—Spokane: *Eutamias amoenus canicaudus.*

Stevens.—Loon Lake: *Microsorex hoyi washingtoni.*

Thurston.—Olympia, 4 miles south of: *Thomomys talpoides pugetensis.*

Tenino, Yelm Prairie: *Thomomys talpoides yelmensis.*

Tenino, 7 miles north of: *Thomomys talpoides tumuli.*

UNITED STATES—Continued

Washington—Continued

Wahkiakum.—Cathlamet, 12 miles north-northeast of: *Thomomys talpoides louiei.*

Walla Walla.—Fort Walla Walla, near Wallula: *Lepus townsendii townsendii; Lagurus curtatus pauperrimus.*

Touchet: *Lepus californicus wallwalla; Citellus washingtoni washingtoni; Thomomys talpoides columbianus.*

Walla Walla: *Scapanus orarius schefferi.*

Wallula, near: *Citellus townsendii townsendii.*

Whitman National Monument, 6 miles north of Walla Walla: *Thomomys talpoides whitmani.*

Yakima.—Mabton: *Citellus mollis yakimensis.*

Mount Adams, near: *Ovis canadensis californiana.*

Mount Adams: *Oreamnos americanus americanus.*

Selah: *Thomomys talpoides yakimensis.*

Union Gap, ¾ mile north of: *Scapanus orarius yakimensis.*

West Virginia

County:

Greenbrier.—Katis Mountain, near White Sulphur Springs: *Glaucomys silus.*

White Sulphur Springs: *Sciurus niger vicinus; Reithrodontomys lecontii impiger.*

Pocahontas.—Cranberry Glades: *Glaucomys sabrinus fuscus.*

Randolph.—Durbin, 6 miles northwest of, Shavers Fork of Cheat River: *Sorex palustris punctulatus.*

Wisconsin

No exact locality: *Odocoileus wisconsinensis.*

County:

Ashland.—Basswood Island, Apostle Islands: *Canis latrans thamnos.*

Clark.—Withee: *Sorex palustris hydrobadistes.*

Worden Township: *Pitymys pinetorum schmidti.*

Columbia.—Westpoint: *Reithrodontomys megalotis pectoralis.*

Grant.—Platteville: *Urocyon cinereoargenteus ocythous.*

Oconto.—Lakewood: *Microsorex hoyi intervectus.*

Oneida.—Crescent Lake: *Eutamias minimus jacksoni; Napaeozapus insignis frutectanus.*

Racine.—Racine: *Microsorex hoyi hoyi; Arvicola austerus.*

Rock.—Milton, 4 miles east of: *Taxidea taxus jacksoni.*

Wyoming

Black Hills (now Laramie Mountains): *Phenacomys truei.*

County:

Albany.—Laramie, 1 mile east of: *Thomomys talpoides rostralis.*

Woods Post Office, Medicine Bow Mountains: *Marmota flaviventris luteola.*

Big Horn.—Shell, 12 miles east and 2 miles north of, Big Horn Mountains: *Lepus americanus seclusus.*

Spring Creek, Big Horn Basin: *Sylvilagus audubonii baileyi.*

Trapper Creek, head of, Big Horn Mountains: *Eutamias minimus confinis; Thomomys talpoides caryi.*

Carbon.—Bridger Pass, 18 miles southwest of Rawlins: *Thomomys talpoides clusius; Lynx rufus uinta.*

Savery, 8 miles north and 19½ miles east of: *Thomomys talpoides meritus.*

Crook.—Bear Lodge, Sundance National Forest, Black Hills: *Ursus rogersi bisonophagus.*

Bear Lodge Mountains: *Zapus hudsonius campestris.*

Jack Boyden's Ranch, 5 miles above mouth of Sand Creek Canyon, Black Hills: *Thomomys talpoides nebulosus.*

Sundance, 3 miles northwest of: *Eutamias minimus silvaticus.*

Fremont.—Fremont Peak, Wind River Mountains: *Ochotona princeps ventorum.*

Fremont Peak, near, Wind River Mountains: *Lepus americanus bairdii.*

Fremont Peak, 7 miles south of, Wind River Mountains: *Citellus lateralis caryi.*

Milford: *Microtus montanus caryi.*

South Pass City, Wind River Mountains: *Tamiasciurus hudsonicus ventorum.*

Sun, Sweetwater Valley: *Perognathus fasciatus litus.*

Wind River Mountains, near head of Big Wind River: *Felis concolor hippolestes.*

Goshen.—Fort Laramie: *Mustela nigripes.*

UNITED STATES—Continued

Wyoming—Continued

Laramie.—Horse Creek Post Office, 3½ miles west of: *Thomomys talpoides attenuatus.*

Lincoln.—Cumberland: *Perognathus parvus clarus.*

Natrona.—Casper: *Dipodomys ordii luteolus.*

Park.—Shoshone River, north fork of, Absaroka Mountains, between Big Horn Basin and Yellowstone National Park: *Ursus washake.*

Whirlwind Peak, Absaroka Range: *Thomomys talpoides tenellus.*

Sweetwater.—Green River [city], near: *Eutamias minimus minimus.*

Kinney Ranch, Green River Basin: *Myotis chrysonotus; Citellus lateralis wortmani; Perognathus callistus; Dipodomys ordii priscus; Neotoma cinerea cinnamomea.*

Teton.—Snake River, 4 miles south of Yellowstone National Park: *Alces alces shirasi.*

Uinta.—Fort Bridger: *Cynomys leucurus; Citellus richardsonii elegans.*

Harvey's Ranch, now Mountainview, on Smiths Fork, 4 miles southeast of Fort Bridger: *Thomomys talpoides bridgeri; Thomomys talpoides ocius.*

Uinta Mountains, foothills of, near Fort Bridger: *Citellus armatus.*

Washakie.—Big Horn Mountains, near head of Kirby Creek: *Tamiasciurus hudsonicus baileyi.*

Canyon Creek, near head of, Big Horn Mountains: *Citellus tridecemlineatus alleni.*

Weston.—Newcastle, 23 miles southwest of: *Perognathus flavus piperi.*

Yellowstone National Park.—No exact locality: *Ursus horribilis imperator; Cervus canadensis nelsoni.*

Grey Bull River, Absaroka Mountains: *Ursus rogersi rogersi.*

Lake Hotel: *Myotis lucifugus carissima.*

Slough Creek: *Ursus mirus.*

Swan Lake Valley: *Eutamias consobrinus clarus.*

MÉXICO

No exact locality: *Chrotopterus auritus auritus; Choeronycteris mexicana; Vampyrops helleri; Centurio mexicanus; Desmodus rotundus murinus; Eptesicus albigularis; Sciurus texianus; Heteromys longicaudatus; Procyon lotor castaneus; Felis buffoni; Felis griffithii; Felis mexicana; Bison bison bison.*

Eastern México: *Sciurus aureogaster aureogaster.*

Mexican tableland, southern end: *Lepus callotis.*

Mexican tableland, southwestern part: *Lepus nigricaudatus.*

Mountains of México: *Coendou mexicanus mexicanus.*

Northern México: *Didelphis marsupialis mesamericana.*

Southern México: *Mormoops megalophylla megalophylla; Anoura geoffroyi lasiopyga; Peromyscus boylii aztecus.*

Southern México, probably Valley of México: *Cratogeomys merriami merriami.*

Valley of México, probably in or near: *Oryzomys fulgens; Odocoileus virginianus mexicanus.*

Veracruz, Puebla, or Oaxaca, probably somewhere in: *Myotis californicus mexicanus; Atalapha mexicana.*

Aguascalientes

Chicalote: *Dipodomys spectabilis cratodon.*

Baja California

No exact locality, 10 miles off Pacific Coast: *Globicephala scammonii.*

Aguaje de las Fresas, Sierra San Pedro Mártir: *Sorex oreinus.*

Aguaje de San Esteban, about 25 miles northwest of San Ignacio: *Eutamias merriami meridionalis.*

Aguajito Spring, El Valle de la Trinidad: *Dipodomys merriami trinidadensis.*

Alamo, 10 miles southeast of: *Sylvilagus bachmani howelli.*

Ángel de la Guardia Island, Gulf of California: *Peromyscus guardia guardia; Neotoma lepida insularis.*

Angel de la Guarda Island, Puerto Refugio: *Perognathus spinatus guardiae.*

Barril, lat. 28°20′ N., long. 112°50′ W., Gulf of California: *Dipodomys merriami annulus.*

Boca la Playa, 16 miles west of Santo Tomás: *Thomomys bottae proximarinus.*

Buena Vista, lat. 24°50′ N., long. 111°50′ W., Magdalena Plain: *Dipodomys merriami llanoensis.*

MÉXICO—Continued

Baja California—Continued

Cajón de Tecomaja, Sierra de la Giganta: *Ovis canadensis weemsi.*

Calmallí: *Dipodomys merriami platycephalus; Felis concolor improcera.*

Calmallí, 45 miles south of: *Antilocapra americana peninsularis.*

Cape (Cabo de) San Lucas: *Myotis volans volans; Spilogale gracilis lucasana.*

Carmen Island, Gulf of California: *Lepus californicus sheldoni; Perognathus spinatus occultus; Peromyscus eremicus carmeni; Neotoma lepida nudicauda.*

Cataviña: *Citellus beecheyi rupinarum; Thomomys bottae catavinensis.*

Ceralbo (Ceralvo) [Cerralvo] Island, Gulf of California: *Perognathus arenarius siccus; Peromyscus eremicus avius.*

Cerros (Cedros) Island: *Sylvilagus bachmani cerrosensis; Perognathus anthonyi; Peromyscus eremicus cedrosensis; Neotoma bryanti; Odocoileus hemionus cerrosensis.*

Chapala Dry Lake, 2 miles north of, lat. 29°30′ N., long. 114°35′ W., on Llano de Santa Ana: *Dipodomys peninsularis pedionomus.*

Comondú: *Myotis micronyx; Antrozous minor; Citellus atricapillus; Neotoma lepida ravida; Bassariscus astutus palmarius; Spilogale gracilis microdon.*

Coronados Island, Gulf of California: *Perognathus spinatus pullus; Peromyscus pseudocrinitus; Peromyscus maniculatus assimilis; Neotoma bunkeri.*

Danzante Island, Gulf of California: *Perognathus spinatus seorsus; Neotoma lepida latirostra.*

Diablito Spring, near, summit of San Matías Pass, between Sierra Juárez and Sierra San Pedro Mártir: *Thomomys bottae xerophilus.*

El Cajón Cañon, Sierra San Pedro Mártir: *Thomomys bottae siccovallis.*

El Rosario, 1 mile east of: *Thomomys bottae abbotti; Neotoma lepida egressa.*

Espíritu Santo Island, Gulf of California: *Lepus insularis; Lepus edwardsi; Citellus insularis; Perognathus spinatus lambi; Peromyscus eremicus insulicola; Neotoma lepida vicina; Bassariscus astutus saxicola.*

Gonzaga Bay, small island in: *Peromyscus crinitus pallidissimus; Peromyscus maniculatus hueyi.*

Guadalupe Island: *Arctocephalus townsendi.*

Islet of Cardonal or Islo, Archipelago of Salsipuedes, Gulf of California: *Pizonyx vivesi.*

Jacumba Valley, opposite Jacumba, San Diego County, Calif.: *Perognathus longimembris internationalis.*

La Grulla, Sierra San Pedro Mártir: *Myotis milleri; Myotis orinomus; Thomomys bottae martirensis; Dipodomys agilis martirensis; Microtus californicus perplexabilis; Microtus californicus hyperythrus.*

Laguna Hanson, Sierra Juárez: *Citellus beecheyi nudipes; Thomomys bottae juarezensis.*

La Laguna, Sierra de la Laguna: *Sorex ornatus lagunae; Peromyscus truei lagunae.*

La Laguna, Sierra de la Victoria: *Neotoma lepida notia.*

La. Paz: *Thomomys bottae imitabilis; Perognathus arenarius sublucidus; Procyon lotor grinnelli.*

Las Palmas Cañon, 2 miles east of Gaskill's Tanks: *Thomomys bottae lucidus.*

Llano de San Bruno: *Dipodomys merriami brunensis.*

Llano de Yrais, opposite Magdalena Island: *Vulpes macrotis devia.*

Las Flores, 7 miles south of Bahía de Los Ángeles: *Thomomys bottae rhizophagus.*

Los Muertos Cañon fan, Gaskill's Tanks, near Laguna Salada: *Perognathus arenarius mexicalis.*

Los Palmitos, Pattie Basin, Sierra Juárez: *Thomomys bottae cunicularis.*

Magdalena Island: *Lepus californicus magdalenae; Thomomys bottae magdalenae; Perognathus arenarius albulus; Perognathus spinatus magdalenae; Peromyscus maniculatus magdalenae.*

Matancita (Soledad), 50 miles north of Magdalena Bay: *Neotoma lepida pretiosa.*

Mattomi, Sierra San Pedro Mártir: *Ovis canadensis cremnobates.*

Mejía Island, near Ángel de la Guarda Island, Gulf of California: *Perognathus spinatus evermanni; Peromyscus guardia mejiae.*

Monserrate Island, Gulf of California: *Perognathus baileyi fornicatus; Peromyscus caniceps.*

Nachogüero Valley: *Peromyscus texanus medius.*

MÉXICO—Continued

Baja California—Continued

Natividad Island: *Peromyscus maniculatus dorsalis.*

Piñón, Sierra San Pedro Mártir: *Perognathus californicus mesopolius.*

Playa María: *Sylvilagus audubonii confinis.*

Punta Prieta: *Citellus leucurus canfieldae; Thomomys bottae cactophilus.*

Punta Prieta, 25 miles north of: *Perognathus spinatus prietae.*

Rancho Lagunitas, 1 mile east of: *Thomomys bottae homorus.*

Rosarito, Sierra San Pedro Mártir: *Perognathus knekus.*

Rosarito Divide, Sierra San Pedro Mártir: *Peromyscus hemionotis.*

Saccaton, 15 miles north of Cape San Lucas: *Citellus leucurus extimus.*

San Agustín: *Perognathus longimembris venustus.*

San Ángel, 16 miles west-southwest of San Ignacio: *Thomomys bottae russeolus.*

San Antonio River, head of, Sierra San Pedro Mártir: *Onychomys torridus macrotis.*

San Antonio, Sierra San Pedro Mártir: *Peromyscus gaurus.*

San Bartolomé Bay: *Mirounga angustirostris.*

San Borjas Mountains: *Thomomys bottae borjasensis.*

San Esteban Island, Gulf of California: *Peromyscus stephani.*

San Felipe: *Citellus tereticaudus vociferans; Perognathus formosus cinerascens; Perognathus baileyi hueyi; Perognathus arenarius albescens; Dipodomys merriami arenivagus; Neotoma lepida felipensis.*

San Francisco Island, Gulf of California: *Perognathus spinatus latijugularis; Neotoma lepida abbreviata.*

San Francisquito Bay, 7 miles west of, lat. 28°30′ N., Gulf of California: *Dipodomys peninsularis eremoecus.*

San Gerónimo Island: *Peromyscus maniculatus geronimensis; Phoca vitulina geronimensis.*

San Ignacio, Cape region: *Myotis yumanensis lambi; Urocyon cinereoargenteus peninsularis.*

San Isidro Ranch, within 2 miles of United States boundary and 19 miles east from Pacific seacoast: *Mephitis mephitis holzneri.*

San Jorge, west of Pozo Grande, and 25 miles southwest of Comondú: *Myotis capitaneus; Thomomys bottae incomptus; Perognathus arenarius arenarius.*

San José del Cabo: *Myotis velifer peninsularis; Perognathus spinatus peninsulae; Dipodomys merriami melanurus; Peromyscus eremicus eva; Neotoma lepida arenacea.*

San José Island, Gulf of California: *Sylvilagus mansuetus; Perognathus spinatus bryanti; Dipodomys insularis; Peromyscus eremicus cinereus; Neotoma lepida perpallida; Bassariscus astutus insulicola.*

San Juan de Dios, mouth of canyon of, lat. 30°7′ N.: *Dipodomys agilis plectilis.*

San Marcos Island, Gulf of California: *Perognathus spinatus marcosensis; Neotoma lepida marcosensis.*

San Martín Island: *Peromyscus maniculatus martinensis; Peromyscus maniculatus exiguus; Neotoma martinensis.*

San Pablo Point: *Peromyscus eremicus propinquus.*

San Quintín: *Perognathus baileyi rudinoris; Perognathus arenarius helleri; Reithrodontomys megalotis peninsulae; Peromyscus homochroia; Microtus californicus aequivocatus.*

San Quintín, 5 miles east of: *Dipodomys merriami quintinensis.*

San Roque Island: *Peromyscus maniculatus cineritius.*

San Telmo: *Citellus leucurus peninsulae.*

San (Santo) Tomás, 18 miles south of Ensenada: *Thomomys bottae aphrastus.*

Sangre de Cristo, Valle San Rafael, Sierra Juárez: *Thomomys bottae jojobae; Perognathus longimembris aestivus; Microtus californicus grinnelli.*

Santa Anita, near San José del Cabo, Cape San Lucas: *Natalus mexicanus mexicanus; Lepus californicus xanti; Sylvilagus bachmani peninsularis; Thomomys bottae anitae; Oryzomys peninsulae; Peromyscus maniculatus coolidgei; Taxidea taxus infusca; Canis latrans peninsulae; Lynx rufus peninsularis.*

Santa Catalina Island, 17 miles northeast of Punta San Marcial: *Peromyscus slevini.*

Santa Catarina, 7 miles north of: *Dipodomys merriami semipallidus.*

Santa Catarina Landing, lat. 29° 31′ N.: *Dipodomys paralius.*

Santa Catarina Landing, 4 miles north of: *Thomomys bottae ruricola.*

Santa Cruz Island, Gulf of California: *Peromyscus sejugis.*

MÉXICO—Continued

Baja California—Continued

Santa Margarita Island: *Perognathus arenarius ammophilus; Perognathus spinatus margaritae; Dipodomys margaritae; Peromyscus eremicus polypolius; Peromyscus maniculatus margaritae.*

Santo Domingo, Magdalena Plain: *Dipodomys peninsularis australis.*

Santo Domingo Landing: *Dipodomys agilis peninsularis; Neotoma lepida molagrandis.*

Santo Domingo Mission, 2 miles west of: *Sylvilagus bachmani rosaphagus; Dipodomys gravipes; Dipodomys agilis latimaxillaris.*

Sierra Laguna, between La Laguna and Victoria Mountain: *Eptesicus fuscus peninsulae; Dasypterus ega xanthinus; Thomomys bottae alticolus; Odocoileus hemionus peninsulae.*

Sierra San Pedro Mártir: *Scapanus latimanus anthonyi; Lepus californicus martirensis; Eutamias merriami obscurus; Tamiasciurus douglasii mearnsi; Sitomys americanus thurberi; Peromyscus truei martirensis.*

Socorro, 15 miles south of San Quintín: *Sorex juncensis.*

South San Lorenzo Island, Gulf of California: *Peromyscus guardia interparietalis.*

Stearns Point, west side of Magdalena Bay: *Thomomys bottae litoris.*

Todos Santos Island: *Peromyscus maniculatus dubius; Neotoma anthonyi.*

Tortuga Island, Gulf of California: *Peromyscus dickeyi.*

Tres Pachitas, 36 miles south of La Paz: *Perognathus baileyi extimus.*

Trinidad Valley, northwest base of Sierra San Pedro Mártir: *Vulpes macrotis tenuirostris.*

Turtle (San Bartolomé) Bay: *Perognathus fallax inopinus.*

Valladares, Sierra San Pedro Mártir: *Neotoma fuscipes martirensis.*

Valle de la Trinidad: *Citellus tereticaudus apricus.*

Vallecitos, Sierra San Pedro Mártir: *Peromyscus oresterus; Spilogale gracilis martirensis; Canis latrans clepticus.*

Yubay, 30 miles southeast of Calamhue (Calamajue): *Sylvilagus bachmani exiguus; Perognathus arenarius ambiguus.*

Campeche

Apazote, near Yohaltún: *Sciurus deppei vivax; Sciurus yucatanensis baliolus; Oryzomys fulvescens mayensis; Ototylomys phyllotis phaeus; Peromyscus yucatanicus badius; Dasyprocta punctata yucatanica; Jentinkia sumichrasti campechensis; Tayassu pecari ringens.*

Campeche [city]: *Heterogeomys hispidus yucatanensis.*

La Tuxpeña, Champotón: *Procyon lotor shufeldti; Potos flavus campechensis.*

Yohaltún: *Peromyscus leucopus castaneus; Felis onca goldmani.*

Chiapas

Canjob: *Reithrodontomys fulvescens chiapensis.*

Chicharras: *Heteromys goldmani; Orzomys alfaroi hylocetes.*

Comitán, valley of: *Talarida intermedia; Baiomys musculus nigrescens.*

Finca Esperanza, 45 kilometers northwest of Huixtla: *Orthogeomys grandis soconuscensis.*

Finca Lubeca, 12 kilometers northeast of Huixtla: *Orthogeomys grandis huixtlae.*

Huehuetán: *Myotis nigricans extremus; Sciurus variegatoides goldmani; Peromyscus allophylus; Liomys crispus setosus; Dasyprocta punctata chiapensis; Pecari tajacu nelsoni; Odocoileus virginianus thomasi.*

La Esperanza coffee plantation, southeast of, 45 kilometers northeast of Huixtla: *Potos flavus dugesi.*

Mapastepec: *Orzomys fulvescens pacificus.*

Ocuilapa, 10 miles northwest of Ocozocuautla [de Espinosa]: *Scotinomys teguina subnubilus.*

Pinabete: *Heteromys nelsoni; Mustela frenata goldmani.*

Prusia: *Rheomys thomasi chiapensis.*

San Bartolomé: *Spilogale angustifrons elata.*

San Cristóbal: *Sorex stizodon; Sorex veraepacis chiapensis; Sorex saussurei cristobalensis; Cryptotis griseoventris; Sylvilagus floridanus chiapensis; Sciurus griseoflavus chiapensis; Peromyscus zarhynchus cristobalensis; Neotoma ferruginea chamula; Odocoileus virginianus nelsoni.*

San Vicente: *Canis latrans goldmani.*

MÉXICO—Continued

Chiapas—Continued

Tenejapa, about 16 miles northeast of San Cristóbal: *Heterogeomys hispidus chiapensis.*

Teopisca, 20 miles southeast of: *Glaucomys volans goldmani.*

Tonalá: *Heteromys desmarestianus griseus; Liomys crispus crispus; Sigmodon hispidus tonalensis.*

Tumbalá: *Sorex sclateri; Oryzomys alfaroi saturatior; Tylomys tumbalensis; Peromyscus zarhynchus.*

Tuxtla Gutiérrez: *Orthogeomys grandis annexus; Tylomys bullaris.*

Villa Flores: *Reithrodontomys mexicanus scansor.*

Chihuahua

Altamirano, 8 miles west of, Sierra Madre: *Thomomys umbrinus caliginosus.*

Batopilas: *Perognathus artus.*

Carimechi, Río Mayo: *Urocyon cinereoargenteus madrensis.*

Casas Grandes, Sierra Madre: *Perognathus apache melanotis; Euarctos americanus machetes.*

Chihuahua [city], 5 miles southeast of: *Reithrodontomys fulvescens canus.*

Chihuahua [city], mountains near: *Neotoma mexicana mexicana.*

Colonia García, about 60 miles southwest of Casas Grandes: *Sciurus aberti barberi; Peromyscus melanotis zamelas; Peromyscus polius; Canis lupus baileyi; Ursus nelsoni; Felis concolor azteca.*

Colonia Juárez: *Thomomys bottae toltecus.*

Eagle [Aguila] Mountain: *Spilogale ambigua.*

[El] Espía: *Procyon lotor mexicanus.*

Escalón: *Peromyscus maniculatus blandus.*

Gallego: *Cratogeomys castanops consitus.*

Hidalgo del Parral: *Thomomys baileyi nelsoni.*

Janos (between Janos, Chihuahua, and San Luis Springs, New Mexico): *Reithrodontomys megalotis megalotis.*

Lago de Santa María: *Ovis canadensis mexicana.*

Pacheco, near: *Corynorhinus rafinesquii mexicanus.*

Parral: *Dipodomys spectabilis zygomaticus; Liomys irroratus canus.*

Pilares Cañon, 10 miles northeast of Colonia García: *Thomomys umbrinus madrensis.*

Presidio del Norte, Río Grande, near Ojinaga: *Cratogeomys castanops clarkii.*

Providencia Mines: *Peromyscus metallicola.*

Río Gavilán, 5 miles west of Colonia García: *Microtus mexicanus madrensis.*

Samalayuca: *Dipodomys ordii extractus; Onychomys leucogaster albescens.*

Sierra en Media: *Odocoileus hemionus canus; Antilocapra americana mexicana.*

Sierra Madre, no exact locality: *Glaucomys volans madrensis.*

Sierra Madre, about 65 miles east of Batopilas: *Thomomys umbrinus chihuahuae.*

Sierra Madre, foothills of, about 30 miles northwest of Parral: *Sigmodon ochrognathus madrensis.*

Sierra Madre, near Guadalupe y Calvo: *Citellus madrensis; Reithrodontomys megalotis obscurus; Neotoma mexicana madrensis; Nasua narica pallida.*

Coahuila

Botellas Cañon, Sierra del Carmen: *Odocoileus virginianus carminis.*

Carneros: *Cratogeomys castanops subnubilus.*

Club Sierra del Carmen, 2 miles north and about 6 miles west of Piedra Blanca: *Scalopus montanus.*

Gómez Farías, 7 miles south and 1 mile east of: *Peromyscus melanophrys coahuiliensis.*

Jaral: *Cratogeomys castanops subsimus; Perognathus nelsoni canescens.*

Las Vacas, 7 miles east of, Río Grande Valley: *Cratogeomys castanops convexus.*

La Ventura: *Cynomys mexicanus; Citellus spilosoma pallescens; Dipodomys nelsoni.*

Madera Camp, Sierra del Carmen: *Sorex milleri.*

Río Nazas: *Sigmodon hispidus berlandieri.*

Saltillo: *Neotoma goldmani.*

San Antonio de Jaral: *Vulpes macrotis zinseri.*

San Pedro, 10 miles west of Laguna de Mayrán: *Cratogeomys castanops excelsus.*

Sierra del Carmen: *Eutamias dorsalis carminis; Thomomys sturgisi; Neotoma mexicana inornata.*

Sierra Guadalupe: *Eutamias bulleri solivagus; Neotoma navus; Microtus mexicanus subsimus; Euarctos americanus eremicus; Conepatus mesoleucus pediculus.*

Sierra Guadalupe, 12 or 15 miles south of General Cepeda: *Thomomys umbrinus analogus.*

MÉXICO—Continued

Colima

Armería, near Manzanillo: *Oryzomys melanotis colimensis; Conepatus mesoleucus nelsoni; Pecari tajacu humeralis.*

Colima: *Cratogeomys fumosus; Reithrodontomys fulvescens nelsoni; Peromyscus allex; Baiomys musculus musculus; Sigmodon colimae; Urocyon cinereoargenteus colimensis.*

Hacienda Magdalena, between Colima [city] and Manzanillo: *Sciurus poliopus colimensis; Xenomys nelsoni.*

Manzanillo: *Citellus annulatus annulatus; Sciurus colliaei nuchalis; Neotoma alleni alleni; Nasua narica molaris; Canis latrans vigilis; Felis pardalis nelsoni.*

Distrito Federal

Colonia del Valle, México [city]: *Cratogeomys tylorhinus arvalis.*

México [city], mountains northwest of: *Mephitis macroura macroura.*

Tacubaya: *Nyctinomus depressus.*

Tlalpan, 10 miles south of México [city]: *Cryptotis soricina; Perognathus flavus mexicanus; Liomys irroratus pullus; Oryzomys couesi crinitus; Reithrodontomys fulvescens toltecus; Peromyscus truei gratus; Procyon lotor hernandezii; Spilogale angustifrons angustifrons.*

Valley of México, near México [city]: *Citellus variegatus variegatus; Mustela frenata frenata.*

Durango

Arroyo de Bucy: *Eutamias bulleri durangae.*

Chacala: *Thomomys simulus parviceps.*

Ciudad Ranch, 100 miles west of Durango [city]: *Sciurus aberti durangi.*

Coyotes: *Eutamias nexus.*

Durango [city]: *Citellus spilosoma spilosoma; Thomomys umbrinus durangi; Peromyscus melanophrys xenurus.*

Durango [city], 8 miles northeast of: *Peromyscus truei erasmus.*

El Salto: *Sorex durangae.*

Guaraceví: *Eutamias canescens.*

La Cienaga: *Sciurus aberti phaeurus.*

La Cienaga de las Vacas: *Sigmodon hispidus baileyi.*

Mapimí: *Thomomys umbrinus; Peromsycus pectoralis eremicoides.*

Mount San Gabriel, vicinity of Rosario, 10 miles northwest of Villa Ocampo, Río Florida: *Thomomys umbrinus evexus.*

Rancho Bailon: *Sylvilagus durangae.*

Rancho Santuario: *Lepus gaillardi battyi; Odocoileus battyi.*

Río de las Bocas: *Lepus texianus micropus; Canis latrans impavidus.*

Río Sestín: *Myotis californicus durangae; Citellus variegatus rupestris; Dipodomys ordii obscurus; Reithrodontomys megalotis sestinensis; Peromyscus texanus flaccidus; Baiomys taylori paulus.*

San Gabriel: *Neotoma albigula durangae.*

San Juan, 12 miles west of Lerdo: *Dipodomys ordii idoneus.*

Guanajuato

Guanajuato [city], near: *Cryptotis pergracilis macra.*

Santa Rosa, about 7 miles northeast of Guanajuato [city]: *Thomomys umbrinus supernus.*

Guerrero

Acapulco: *Sylvilagus cunicularius pacificus; Sciurus socialis cocos; Orthogeomys grandis alleni; Neotoma alleni guerrerensis; Spilogale pygmaea australis; Odocoileus virginianus acapulcensis.*

Acapulco, off beach 20 miles north of: *Stenella graffmani.*

Chilpancingo: *Bassariscus astutus bolei.*

Chilpancingo, mountains near: *Cryptotis mexicana goldmani; Sciurus poliopus effugius; Peromyscus comptus; Peromyscus thomasi; Neotoma ferruginea picta.*

Cuapongo, near Chilpancingo: *Neotoma alleni elattura.*

El Limón, Valley of Río de las Balsas, about 20 miles southwest of La Unión: *Orthogeomys grandis guerrerensis.*

El Limón Ranch, 4 kilometers south of Arcelia, Aldama District: *Citellus adocetus arceliae.*

Ometepec: *Liomys pictus rostratus; Potos flavus guerrerensis.*

Omilteme.—*Cryptotis guerrerensis; Sylvilagus insonus; Liomys guerrerensis; Oryzomys guerrerensis; Sigmodon guerrerensis.*

[El] Papayo, about 25 miles northeast of Acapulco: *Noctilio leporinus mexicanus; Sturnira lilium parvidens.*

MÉXICO—Continued

Guerrero—Continued

Tierra Colorada, Sierra Madre del Sur: *Artibeus nanus.*

Yerba Buena: *Leptonycteris nivalis yerbabuenae.*

Hidalgo

Apam: *Sylvilagus audubonii parvulus.*

El Chico, Sierra de Pachuca: *Thomomys umbrinus albigularis; Conepatus mesoleucus mesoleucus.*

Irolo: *Lepus californicus festinus; Cratogeomys merriami irolonis.*

Real del Monte, near, Valley of México: *Dipodomys phillipsii phillipsii.*

Tula: *Cratogeomys tylorhinus tylorhinus.*

Tulancingo: *Cryptotis obscura.*

Zimapán.—*Neotoma montezumae.*

Jalisco

Ameca: *Pappogeomys bulleri amecensis; Oryzomys couesi albiventer; Reithrodontomys fulvescens griseoflavus; Reithrodontomys hirsutus.*

Atemajac, near Guadalajara: *Pappogeomys bulleri albinasus; Neotoma ferruginea ochracea.*

Barranca Ibarra: *Pipistrellus hesperus australis.*

Beltran: *Felis wiedii glaucula.*

Bolaños: *Macrotus mexicanus bulleri; Neotoma palatina.*

Colima, plains of: *Sylvilagus cunicularius insolitus.*

Guadalajara, 3 miles north of: *Peromyscus melanophrys micropus.*

Hacienda San Marcos, Tonila: *Sciurus poliopus cervicalis; Oryzomys couesi mexicanus.*

Lagos: *Cratogeomys zinseri; Peromyscus truei gentilis.*

La Laguna, Sierra de Juanacatlán: *Pappogeomys bulleri lagunensis; Liomys bulleri.*

Lake Zacoalco: *Myotis californicus jaliscensis.*

Las Canoas, about 20 miles west of Zapotlán: *Liomys irroratus jaliscensis.*

Las Peñas: *Pteronotus davyi fulvus.*

Milpillas, mountains at, near San Sebastián: *Megasorex gigas; Pappogeomys bulleri flammeus.*

Mineral San Sebastián: *Liomys pictus pictus; Oryzomys melanotis melanotis.*

Mineral San Sebastián, Mascota: *Peromyscus boylii spicilegus; Sigmodon hispidus mascotensis.*

Nevado de Colima: *Reithrodontomys colimae.*

Nevado de Colima, foothill region: *Reithrodontomys sumichrasti nerterus; Reithrodontomys levipes otus.*

Nevado de Colima, north slope of: *Sorex saussurei saussurei; Sorex oreopolus; Cratogeomys gymnurus inclarus; Neotoma ferruginea tenuicauda; Microtus mexicanus phaeus.*

Ocotlán, north of Lake Chapala: *Cryptotis pergracilis pergracilis; Oryzomys molestus; Peromyscus maniculatus labecula; Sigmodon hispidus inexoratus.*

Plantanar: *Micronycteris megalotis mexicana; Liomys pictus plantinarensis.*

San Sebastián: *Reithrodontomys levipes.*

San Sebastián, Mascota: *Sigmodon alleni.*

Santa Rosalía, near Autlan: *Baeodon alleni.*

Santa Cruz del Valle, near Guadalajara: *Myotis velifer velifer.*

Sierra de Mascota, west slope of: *Pappogeomys bulleri bulleri.*

Sierra Madre, near Bolaños: *Sorex emarginatus.*

Tenacatita Bay: *Pappogeomys bulleri burti.*

Volcán de Fuego: *Sigmodon vulcani.*

Zapotlán: *Sylvilagus floridanus restrictus; Pappogeomys bulleri nelsoni; Cratogeomys gymnurus gymnurus.*

México

Amecameca: *Molossus aztecus.*

México [city], near.—*Bassariscus astutus astutus.*

Salazar: *Thomomys umbrinus peregrinus.*

Toluca: *Citellus mexicanus mexicanus.*

Toluca Valley: *Neotoma fulviventer.*

Volcán de Ixtaccíhuatl: *Cratogeomys merriami peregrinus.*

Volcán de Popocatépetl: *Cryptotis alticola; Romerolagus nelsoni; Thomomys umbrinus vulcanius; Cratogeomys merriami oreocetes; Reithrodontomys chrysopsis chrysopsis.*

Volcán de Toluca, north slope of: *Sciurus oculatus tolucae; Thomomys umbrinus tolucae; Cratogeomys tylorhinus planiceps; Reithrodontomys chrysopsis tolucae.*

Zacualpan: *Sylvilagus cunicularius cunicularius.*

MÉXICO—Continued

Michoacán

Apatzingán, 10 kilometers west of: *Peromyscus perfulvus.*

Cerro de San Andrés, about 10 miles northwest of Ciudad Hidalgo: *Reithrodontomys microdon wagneri.*

La Palma: *Peromyscus sagax.*

La Salada, 40 miles south of Uruapan: *Artibeus hirsutus; Citellus adocetus adocetus; Sciurus poliopus senex; Liomys pictus parviceps; Peromyscus banderanus vicinior; Bassariscus astutus consitus.*

Los Reyes: *Oryzomys couesi regillus; Oryzomys fulvescens lenis.*

Mount (Cerro) Patambán: *Cratogeomys angustirostris.*

Mount (Cerro) Tancítaro: *Reithrodontomys chrysopsis seclusus; Nelsonia goldmani; Microtus mexicanus salvus.*

Nahuatzen: *Zygogeomys trichopus trichopus; Neotomodon alstoni alstoni.*

Negrete, near, Hacienda El Molino: *Sylvilagus floridanus subcinctus.*

Pátzcuaro: *Myotis yumanensis lutosus; Sciurus poliopus nemoralis; Thomomys umbrinus pullus; Cratogeomys gymnurus imparilis; Zygogeomys trichopus tarascensis; Liomys irroratus acutus; Reithrodontomys inexspectatus; Peromyscus hylocetes; Peromyscus pavidus; Sigmodon melanotis; Microtus mexicanus fundatus; Mustela frenata leucoparia.*

Querendaro: *Peromyscus zelotes; Neotoma latifrons.*

Uruapan: *Cratogeomys varius.*

Zamora: *Peromyscus melanophrys zamorae; Baiomys taylori analogus.*

Zamora, 6½ miles west of: *Sigmodon hispidus atratus.*

Morelos

Alpuyeca, 5 miles south of: *Sigmodon hispidus obvelatus.*

Axochiapan, 12 kilometers northwest of: *Baiomys musculus pallidus.*

Cuautla [Cuautla Morelos]: *Balantiopteryx ochoterenai.*

Huitzilac: *Sciurus nelsoni nelsoni.*

Puente de Ixtla: *Heteromys exiguus.*

Tetela del Volcán (south slope of Volcán de Popocatépetl): *Artibeus aztecus.*

Tetela del Volcán and Zacualpan, abandoned mine between: *Neotoma torquata.*

Xiutepec: *Glossophaga morenoi.*

Yautepec, near Cuautla: *Macrotus mexicanus mexicanus; Oryzomys couesi aztecus.*

Nayarit

Acaponeta: *Molossus nigricans.*

Colomo, near Río de Ameca: *Thomomys umbrinus extimus.*

Compostela: *Heteromys hispidus.*

Jalisco, about 10 miles south of Tepic: *Pappogeomys bulleri nayaritensis.*

Pedro Pablo, about 14 miles east-southeast of Acaponeta, Sierra de Teponahuaxtla: *Thomomys umbrinus musculus.*

Rancho Palo Amarillo, near Amatlán de Cañas: *Sciurus poliopus tepicanus.*

Río de Tepic: *Lutra annectens annectens.*

San Blas: *Chilonycteris rubiginosa mexicana; Sciurus colliaei colliaei; Peromyscus boylii simulus.*

Santa Teresa, 40 miles east of Acaponeta: *Thomomys umbrinus sheldoni.*

Santiago: *Citellus annulatus goldmani; Oryzomys rufus.*

Tepic: *Cryptotis pergracilis nayaritensis.*

Tres Marías Islands, no definite locality.—*Rhogeëssa parvula parvula.*

- María Madre Island: *Marmosa canescens insularis; Glossophaga soricina mutica; Oryzomys nelsoni; Peromyscus boylii madrensis; Procyon insularis insularis.*
- María Madre Island, probably: *Sylvilagus graysoni.*
- María Magdalena Island: *Procyon insularis vicinus.*

Valle de Banderas: *Oryzomys bulleri; Peromyscus banderanus banderanus.*

Nuevo León

Cerro de la Silla, near Monterrey: *Nasua narica tamaulipensis.*

Lampazos de Naranjo: *Thomomys umbrinus perditus.*

Monterrey: *Sciurus alleni.*

Río de Ramos, 20 kilometers northwest of Montemorelos: *Nycticeius humeralis mexicanus.*

Santa Catarina, a few miles west of Monterrey: *Citellus variegatus couchii.*

Oaxaca

[El] Barrio: *Peromyscus leucopus affinis.*

Cerro San Felipe, near Oaxaca: *Sorex ventralis; Sciurus poliopus poliopus; Orthogeomys grandis felipensis; Reithrodontomys megalotis alticolus;*

MÉXICO—Continued

Oaxaca—Continued

Reithrodontomys microdon albilabris; Peromyscus oaxacensis; Peromyscus difficilis felipensis; Sigmodon alticola alticola; Microtus fulviventer; Conepatus mesoleucus filipensis; Felis wiedii oaxacensis.

Coixtlahuaca: *Peromyscus difficilis amplus.*

Comaltepec: *Oryzomys alfaroi caudatus.*

Cuicatlán: *Liomys irroratus torridus; Peromyscus musculoides.*

Hacienda Santa Efigenia, 8 miles north of Tapanatepec: *Ateles tricolor.*

Huajuapán: *Liomys irroratus minor.*

Huilotepec, 8 miles south of Tehuantepec: *Neotoma ferruginea isthmica.*

Juquila: *Marmosa mexicana mexicana; Reithrodontomys rufescens luteolus; Peromyscus boylii evides; Sigmodon planifrons; Neotoma parvidens.*

La Parada: *Heteromys albolimbatus.*

Llano Grande: *Reithrodontomys fulvescens mustelinus.*

Mount (Cerro) Zempoaltepec: *Cryptotis fossor; Orthogeomys grandis nelsoni; Peromyscus lepturus; Peromyscus melanocarpus; Orthriomys umbrosus.*

Niltepec: *Phyllostomus discolor verrucosus.*

Oaxaca [city]: *Marmosa canescens oaxacae; Liomys irroratus irroratus; Reithrodontomys fulvescens helvolus; Peromyscus maniculatus fulvus.*

Oaxaca [city], mountains 15 miles west of: *Cryptotis mexicana peregrina; Sciurus poliopus hernandezi; Peromyscus megalops auritus; Odocoileus virginianus oaxacensis.*

Ozolotepec, mountains near: *Sorex saussurei oaxacae; Cryptotis mexicana machetes; Reithrodontomys alleni; Peromyscus megalops megalops.*

Pinotepa: *Liomys pictus phaeurus.*

Pluma [Pluma Hidalgo]: *Liomys annectens; Peromyscus megalops melanurus.*

Puerto Ángel: *Sciurus socialis littoralis; Peromyscus banderanus angelensis.*

Reforma: *Reithrodontomys fulvescens amoenus.*

Reyes (near Cuicatlán): *Sorex veraepacis mutabilis.*

San Antonio.—*Myotis thysanodes aztecus.*

San Carlos Yautepec: *Peromyscus leucurus gadovii.*

San Mateo del Mar: *Spilogale angustifrons tropicalis; Mephitis macroura vittata.*

Santa Efigenia, about 8 miles northwest of Tapanatepec: *Carollia subrufa; Peromyscus melanophrys melanophrys; Nasua narica isthmica.*

Santo Domingo, mountains near, a few miles west of Guichicovi: *Heteromys lepturus.*

Santo Domingo, mountains 12 miles northwest of, and about 60 miles north of Tehuantepec [city]: *Heterogeomys hispidus tehuantepecus.*

Santo Domingo, 8 miles west of Lagunas, Isthmus of Tehuantepec: *Nyctomys sumichrasti pallidulus.*

Santo Domingo de Guzmán, Isthmus of Tehuantepec: *Marmosa canescens canescens.*

Tehuantepec [city]: *Cryptotis frontalis; Lepus flavigularis; Sylvilagus floridanus aztecus; Cyclopes didactylus mexicanus; Sciurus socialis socialis; Orthogeomys grandis scalops; Liomys pictus isthmius; Peromyscus leucurus; Peromyscus tehuantepecus.*

Teotitlán: *Dipodomys phillipsii oaxacae; Reithrodontomys fulvescens infernatis; Baiomys musculus infernatis.*

Totontepec: *Cryptotis magna; Peromyscus mexicanus totontepecus; Neotoma tropicalis.*

Yautepec (Zanatepec), about 65 miles east of Tehuantepec: *Orthogeomys cuniculus.*

Puebla

Atlixco: *Cratogeomys merriami saccharalis.*

Chalchicomula (San Andrés Chalchicomula): *Cratogeomys fulvescens fulvescens; Reithrodontomys saturatus cinereus; Peromyscus mekisturus.*

Huauchinango: *Cryptotis pergracilis pueblensis; Oryzomys alfaroi dilutior.*

Metlatoyuca: *Liomys irroratus pretiosus; Oryzomys rostratus rostratus; Reithrodontomys goldmani; Peromyscus leucopus incensus; Pecari tajacu crassus.*

Mount (Volcán de) Iztaccihuatl [Ixtacihuatl], eastern slope of: *Romerolagus diazi.*

Mount (Pico de, or Volcán de) Orizaba: *Sorex vagrans orizabae; Sylvilagus floridanus orizabae; Thomomys umbrinus orizabae; Reithrodontomys orizabae; Peromyscus cecilii; Neotomodon orizabae; Neotoma orizabae; Microtus mexicanus mexicanus.*

Piaxtla: *Rhogeëssa gracilis; Sciurus poliopus perigrinator.*

MÉXICO—Continued

Puebla—Continued

Puebla [city]: *Sylvilagus floridanus persultator.*

Río Frío, west slope Volcán de Iztaccihuatl [Ixtacihuatl], Valley of México: *Canis latrans cagottis.*

San Martín Texmelucán: *Thomomys umbrinus martinensis.*

Tehuacán: *Neotoma alleni vetula.*

Tochimilco: *Sciurus nelsoni hirtus.*

Querétaro

Cerro de la Calentura, about 8 miles northwest of Pinal de Amoles: *Cratogeomys neglectus.*

Jalpan: *Peromyscus pectoralis pectoralis.*

Pinal de Amoles: *Heterogeomys hispidus concavus; Reithrodontomys megalotis amoles; Sigmodon alticola amoles.*

Quintana Roo

Cozumel Island: *Didelphis marsupialis cozumelae; Mimon cozumelae; Oryzomys cozumelae; Peromyscus leucopus cozumelae; Procyon pygmaeus; Nasua nelsoni; Pecari tajacu nanus.*

La Vega, on mainland coast opposite Isla Cancún: *Conepatus semistriatus yucatanicus.*

Puerto Morelos: *Ateles geoffroyi yucatanensis.*

Xcopén: *Rhynchiscus naso priscus.*

San Luis Potosí

Alvarez, about 3 miles north-northwest of San Luis Potosí [city]: *Thomomys umbrinus atrodorsalis.*

Apetsco, near Xilitla: *Peromyscus latirostris.*

Arriaga, 1 kilometer south of: *Thomomys umbrinus arriagensis; Perognathus lineatus.*

Hacienda La Parada, about 25 miles northwest of San Luis Potosí: *Perognathus nelsoni nelsoni; Dipodomys merriami atronasus; Peromyscus eremicus phaeurus.*

La Tinaja, about 20 miles northeast of San Luis Potosí [city]: *Thomomys umbrinus potosinus.*

Núñez, 10 kilometers north-northeast of: *Citellus spilosoma cabrerai.*

Palma, 7 kilometers northwest of, a village 12 kilometers northwest of Salinas: *Thomomys umbrinus newmani.*

Platanito, 10 kilometers east of: *Oryzomys alfaroi huastecae.*

Presa de Guadalupe: *Pipistrellus hesperus potosinus.*

Presa de Guadalupe, 7 kilometers west of: *Perognathus penicillatus atrodorsalis.*

Rancho San Francisco, 38 kilometers east-southeast of San Luis Potosí [city]: *Sciurus oculatus shawi.*

Río Verde: *Cratogeomys castanops peridoneus; Liomys irroratus alleni; Oryzomys couesi peragrus; Neotoma micropus planiceps.*

San Luis Potosí [city]: *Corynorhinus phyllotis; Lepus californicus asellus; Dipodomys ordii palmeri; Neotoma albigula leucodon.*

Soledad, near San Luis Potosí [city]: *Cratogeomys castanops rubellus.*

Xilitla: *Neotoma ferruginea griseoventer.*

Sinaloa

Agua Caliente, about 40 miles southeast of Mazatlán: *Lepus alleni palitans.*

Altata: *Thomomys bottae sinaloae.*

Culiacán: *Sylvilagus audubonii goldmani.*

Escuinapa: *Molossus rufus sinaloae; Liomys pictus escuinapae; Lynx rufus escuinapae; Odocoileus virginianus sinaloae.*

Mazatlán: *Notiosorex crawfordi evotis; Sciurus sinaloensis; Felis onca hernandesii.*

Mazatlán, off: *Kogia floweri.*

Rosario: *Perognathus pernix pernix; Reithrodontomys fulvescens tenuis; Spilogale pygmaea pygmaea.*

Sierra de Choix, northeast of Choix: *Thomomys umbrinus eximius; Sigmodon hispidus major.*

Sinaloa [city]: *Perognathus goldmani.*

Tatemeles, near Rosario: *Marmosa canescens sinaloae; Thomomys umbrinus atrovarius; Neotoma mexicana sinaloae; Felis yagouaroundi tolteca.*

Sonora

No definite locality: *Didelphis californica.*

Alamos: *Thomomys simulus simulus; Dipodomys merriami mayensis; Liomys pictus sonoranus; Peromyscus merriami goldmani.*

Bahía de Kino: *Ammospermophilus harrisii kinoensis; Perognathus longimembris kinoensis.*

MÉXICO—Continued

Sonora—Continued

Camoa, Río Mayo, about 15 miles above Navojoa: *Sciurus truei; Thomomys bottae camoae; Perognathus pernix rostratus; Onychomys torridus yakiensis; Teanopus phenax; Taxidea taxus sonoriensis; Conepatus mesoleucus sonoriensis; Felis pardalis sonoriensis.*

Cerro La Cholla, 6 miles west-northwest of Punta Peñasca: *Peromyscus crinitus scopulorum.*

Chinapa, 10 miles west of, Río Sonora Valley: *Thomomys umbrinus sonoriensis.*

Cienega Well, 30 miles south of Mexican boundary monument No. 204, Colorado River: *Sigmodon hispidus cremicus.*

Costa Rica Ranch, delta Río Sonora, about 40 miles west-southwest of Hermosillo: *Eumops underwoodi sonoriensis; Thomomys bottae convergens; Perognathus flavus sonoriensis; Reithrodontomys burti; Antilocapra americana sonoriensis.*

Cráter Elegante, 2 miles south of, Sierra del Pinacate: *Peromyscus crinitus delgadilli.*

El Rosario: *Ovis sheldoni.*

Hermosillo: *Citellus sonoriensis; Thomomys bottae winthropi.*

Huachinera, 4 miles west of, Río Bavispe: *Thomomys bottae divergens.*

La Estancia, 6 miles north of Nacori; *Thomomys bottae estanciae.*

La Libertad Ranch, 30 miles east of Sierra de Seri: *Dipodomys deserti sonoriensis.*

La Misión, 2 miles west of Magdalena: *Thomomys bottae basilicae.*

Los Nogales, mountains near: *Ursus kennerleyi.*

Magdalena: *Perognathus baileyi baileyi.*

Nacori, about 29 trail miles northeast of, western slope of Sierra Nacori, Sierra Madre: *Sciurus apache.*

Oposura: *Perognathus penicillatus pricei; Reithrodontomys fulvescens fulvescens.*

Ortiz: *Neotoma albigula melanura.*

Papago Tanks, Sierra Pinacate: *Perognathus intermedius pinacate; Neotoma albigula sheldoni; Neotoma lepida bensoni.*

Paso MacDougall, Sierra Hornaday: *Peromyscus crinitus rupicolus.*

Providencia Mines: *Pipistrellus hesperus apus.*

Puerto Libertad: *Perognathus intermedius lithophilus.*

Punta Peñascosa (Punta Peñasca): *Thomomys bottae vanrossemi; Neotoma lepida aureotunicata.*

Río San Bernardino, near Mexican boundary monument No. 77: *Pecari tajacu sonoriensis.*

Río San Pedro, near Mexican boundary monument No. 98: *Castor canadensis frondator.*

Río Sonoyta, Mexican boundary monument No. 172 (Near Quitobaquito, Ariz.): *Procyon lotor ochraceus.*

San Bernardo, Río Mayo: *Baliantiopteryx plicata pallida.*

San José de Guaymas: *Oryzomys couesi lambi.*

San Pedro Nolasco Island, Gulf of California: *Peromyscus pembertoni; Peromyscus boylii glasselli.*

Santa Cruz: *Peromyscus maniculatus sonoriensis.*

Sierra Pinacate: *Peromyscus eremicus papagensis.*

Sierra Seri, near Gulf of California: *Odocoileus hemionus eremicus.*

Sonoyta: *Peromyscus merriami merriami.*

Tiburón Island, Gulf of California: *Lepus alleni tiburonensis; Perognathus baileyi insularis; Perognathus penicillatus seri; Dipodomys merriami mitchelli; Peromyscus eremicus tiburonensis; Neotoma albigula seri; Canis latrans jamesi; Odocoileus hemionus sheldoni.*

Turners Island, Gulf of California: *Perognathus penicillatus minimus; Peromyscus collatus; Neotoma varia.*

Tabasco

No exact locality: *Tamandua tetradactyla mexicana.*

Monte Cristo: *Pipistrellus cinnamomeus.*

Teapa: *Didelphis marsupialis tabascensis; Saccopteryx bilineata centralis; Artibeus turpis; Myotis fortidens; Heterogeomys hispidus teapensis; Oryzomys teapensis; Oryzomys rostratus megadon; Oryzomys alfaroi palatinus; Peromyscus mexicanus teapensis; Sigmodon hispidus saturatus; Mustela frenata perda.*

Tamaulipas

Altamira: *Lepus californicus altamirae; Sciurus negligens; Geomys personatus tropicalis; Neotoma micropus littoralis.*

MÉXICO—Continued

Tamaulipas—Continued

Brownsville, Texas, 45 miles from: *Scalopus inflatus.*

Charco Escondido: *Perognathus hispidus hispidus; Neotoma micropus micropus.*

Ciudad Victoria, 70 kilometers by highway south of, and 6 kilometers west of Pan-American Highway at El Carrizo: *Peromyscus ochraventer; Neotoma angustapalata.*

Hacienda Santa Engracia, northwest of Ciudad Victoria: *Oryzomys fulvescens engraciae.*

Island 88 miles south and 10 miles west of Matamoros: *Lepus californicus curti; Dipodomys ordii parvabullatus; Sigmodon hispidus solus.*

Jaumave: *Dipodomys ordii fuscus; Dipodomys ordii durranti.*

Matamoros: *Cryptotis parva berlandieri; Dasypterus intermedius; Dasypus novemcinctus mexicanus; Cratogeomys castanops tamaulipensis; Felis apache; Felis yagouaroundi cacomitli.*

Mier, on Río Grande: *Canis latrans microdon.*

Miquihuana: *Idionycteris mexicanus; Cratogeomys castanops planifrons; Onychomys torridus surrufus.*

Miquihuana, near, Sierra Madre Oriental: *Odocoileus virginianus miquihuanensis.*

Rancho Santa Ana, Río Soto la Marina, about 8 miles southwest of Padilla: *Oryzomys rostratus carrorum.*

San José, 12 miles northwest of San Carlos, Sierra San Carlos: *Peromyscus pectoralis collinus.*

Tlaxcala

Mount (Cerro de) Malinche: *Peromyscus boylii levipes.*

Tlaxcala, 13 kilometers northeast of: *Glossophaga soricina alticola.*

Veracruz

No exact locality: *Sciurus aureogaster hypopyrrhus; Oryzomys fulvescens fulvescens; Dasyprocta mexicana; Felis pardalis pardalis.*

Achotal: *Dermanura jucundum; Mustela frenata macrophonius; Nasua narica narica.*

Atoyac: *Potos flavus aztecus.*

Boca del Monte: *Thomomys umbrinus umbrinus.*

Boca del Río, 8 kilometers south of Veracruz [city]: *Reithrodontomys fulvescens tropicalis.*

Carrizal: *Liomys pictus obscurus.*

Catemaco: *Liomys orbitalis; Oryzomys jalapae rufinus; Cuniculus paca nelsoni.*

Chichicaxtle: *Sylvilagus floridanus connectens; Heterogeomys hispidus torridus.*

Chijol: *Odocoileus virginianus veraecrucis.*

Coatzacoalcos: *Vampyrum spectrum nelsoni; Oryzomys goldmani.*

Coatzacoalcos, 14 kilometers southwest of: *Myotis argentatus.*

Cofre de Perote: *Myotis volans amotus; Tadarida mexicana; Cratogeomys perotensis perotensis; Reithrodontomys chrysopsis perotensis; Neotomodon alstoni perotensis; Mustela frenata perotae.*

Hacienda El Mirador; 20 leagues from Veracruz: *Nasua solitaria mexicana.*

Hacienda Tortugas, Jalapa: *Tayra barbara senex.*

Jalapa: *Cryptotis mexicana mexicana; Heterogeomys hispidus hispidus; Oryzomys jalapae; Oryzomys alfaroi chapmani; Reithrodontomys rufescens rufescens; Reithrodontomys costaricensis jalapae; Peromyscus furvus; Baiomys musculus brunneus; Pitymys quasiaster; Mus musculus jalapae.*

Jaltipan: *Heterogeomys hispidus isthmicus.*

Jico: *Peromyscus simulatus; Peromyscus nelsoni; Mustela frenata tropicalis.*

Las Vigas, Cerro de los Pájaros: *Centurio minor; Pipistrellus subflavus veraecrucis; Sylvilagus verae-crucis; Sciurus aureogaster frumentor; Sciurus niger melanonotus; Sciurus oculatus oculatus; Cratogeomys perotensis estor; Reithrodontomys megalotis saturatus; Peromyscus melanotis.*

Minatitlán: *Alouatta palliata mexicana.*

Mirador, about 15 miles northeast of Huatusco: *Artibeus cinereus toltecus; Centurio mcmurtrii; Eptesicus fuscus miradorensis; Rhogeëssa parvula tumida; Ateles geoffroyi vellerosus; Ateles neglectus; Sylvilagus brasiliensis truei; Reithrodontomys sumichrasti sumichrasti; Reithrodontomys mexicanus mexicanus; Peromyscus mexicanus mexicanus; Jentinkia sumichrasti sumichrasti; Mazama sartorii; Mazama americana temama.*

MÉXICO—Continued

Veracruz—Continued

Motzorongo: *Heteromys temporalis; Conepatus semistriatus conepatl; Conepatus tropicalis.*

Mountains, no exact locality: *Glaucomys volans herreranus; Nyctomys sumichrasti sumichrasti; Sigmodon hispidus toltecus.*

Mount (Pico de; Volcán de) Orizaba: *Leptonycteris nivalis nivalis; Cratogeomys perotensis peraltus; Peromyscus beatae.*

Orizaba: *Philander opossum pallidus; Sorex macrodon; Reithrodontomys fulvescens difficilis; Peromyscus leucopus mesomelas; Peromyscus mexicanus orizabae; Urocyon cinereoargenteus orinomus; Odocoileus virginianus toltecus.*

Papantla: *Sciurus deppei deppei.*

Pasa Nueva: *Tamandua tetradactyla tenuirostris; Sylvilagus floridanus russatus.*

Penuela: *Lasiurus borealis ornatus.*

Peréz: *Carollia perspicillata azteca.*

Perote: *Citellus perotensis; Cratogeomys fulvescens subluteus; Dipodomys phillipsii perotensis; Peromyscus bullatus; Neotoma nelsoni.*

Piedras Negras, 15 kilometers west of: *Mephitis macroura eximius.*

Presidio: *Tylomys gymnurus.*

Río Alvarado: *Conepatus leuconotus leuconotus.*

San Andrés Tuxtla: *Liomys pictus veraecrucis; Felis onca veraecrucis.*

San Andrés Tuxtla, 3 kilometers east of: *Natalus mexicanus saturatus.*

San Carlos: *Heteromys paralius; Oryzomys jalapae apatelius.*

San Juan de la Punta: *Caluromys derbianus aztecus.*

Teocelo, near Jalapa: *Neotoma distincta.*

Volcán de Tuxtla: *Cryptotis nelsoni.*

Xico, near Jalapa: *Sorex saussurei veraecrucis; Bassariscus albipes.*

[El] Xuchil, southeastern side of Mount Orizaba: *Heterogeomys lanius.*

Yucatán

No exact locality, Yucatán and southern part of México: *Odocoileus virginianus yucatanensis.*

Northern Yucatán, no exact locality: *Promops centralis.*

Chichén-Itzá: *Didelphis marsupialis yucatanensis; Cryptotis mayensis; Artibeus jamaicensis yucatanicus; Artibeus cinereus phaeotis; Tadarida yucatanica; Heteromys gaumeri; Oryzomys rostratus yucatanensis; Otonyctomys hatti; Reithrodontomys gracilis gracilis; Peromyscus yucatanicus yucatanicus; Nasua narica yucatanica; Spilogale angustifrons yucatanensis.*

Izamal, east of Mérida: *Marmosa mexicana mayensis; Macrotus pygmaeus; Adelonycteris gaumeri; Coendou mexicanus yucataniae.*

Mérida: *Sylvilagus floridanus yucatanicus; Sciurus yucatanensis yucatanensis; Urocyon parvidens; Felis wiedii yucatanica; Felis yagouaroundi fossata.*

Puerto Morelos: *Sigmodon hispidus microdon.*

San Felipe: *Urocyon cinereoargenteus fraterculus.*

Tunkás: *Ototylomys phyllotis phyllotis; Grison canaster; Pecari tajacu yucatanensis; Mazama gouazoubira pandora.*

Yaxcabá, southwest of Chichén-Itzá: *Marmosa gaumeri.*

Zacatecas

Berriozábal: *Thomomys umbrinus zacatecae; Dipodomys ornatus; Peromyscus melanophrys consobrinus.*

Cañitas: *Cratogeomys castanops goldmani.*

El Plateado: *Neotoma albigula zacatecae.*

El Plateado, mountains near: *Nelsonia neotomodon.*

San Juan Capistrano, Hacienda de: *Onychomys torridus canus.*

Sierra Moroni, near El Plateado: *Thomomys umbrinus enixus.*

Sierra de Valparaíso: *Eutamias bulleri bulleri; Sciurus nayaritensis; Thomomys umbrinus crassidens; Reithrodontomys megalotis zacatecae; Peromyscus difficilis difficilis; Sigmodon leucotis.*

Valparaíso: *Perognathus hispidus zacatecae.*

Zacatecas [city]: *Sigmodon fulviventer.*

CENTRAL AMERICA

No exact locality: *Ateles melanochir.*

British Honduras

Cayo

Mountain Cow: *Alouatta palliata luctuosa.*

Mountain Pine Ridge, 12 miles south of El Cayo: *Heterogeomys hispidus cayoensis; Oryzomys couesi pinicola.*

Costa Rica

No exact locality: *Carollia castanea; Chiroderma salvini; Lasiurus borealis frantzii; Dasypus novemcinctus fenestratus; Lutra annectens mesopotes.*

Alajuela

Cataratos San Carlos, Río San Carlos: *Macrogeomys cherriei carlosensis.*

San Carlos: *Oryzomys alfaroi alfaroi.*

San Isidro: *Spilogale angustifrons celeris.*

Villa Quesada, 10 miles northwest of Volcán Poás: *Microsciurus alfari alticola; Reithrodontomys brevirostris; Scotinomys teguina cacabatus.*

Volcán Poás: *Sciurus poasensis.*

Cartago

Angostura, Río Reventazón, opposite Turrialba: *Heteromys desmarestianus subaffinis.*

Angostura Valley: *Proechimys semispinosus rubellus.*

El Copey de Dota, 15 miles south of Cartago, Cordillera de Talamanca: *Sylvilagus brasiliensis dicei; Heteromys oresterus.*

El Muñeco, Río Navarro, 10 miles south of Cartago: *Macrogeomys cavator nigrescens.*

El Sauce Peralta, a farm on Atlantic Railroad, less than halfway from San José to Limón: *Sturnirops mordax; Peromyscus nudipes orientalis; Potos flavus arborensis.*

Estrella de Cartago, near source of Río Estrella, 6 or 8 miles south of Cartago: *Bassaricyon lasius.*

La Carpintera: *Blarina costaricensis; Reithrodontomys costaricensis; Peromyscus nudipes nudipes.*

Las Vueltas: *Scotinomys harrisi.*

Navarro, near Orosi: *Marmosa mexicana zeledoni.*

Orosi, south of Cartago: *Cyclopes didactylus dorsalis.*

Paso Ancho, between Cartago and Pacayas: *Macrogeomys heterodus cartagoensis.*

Santa Teresa Peralta: *Oryzomys fulvescens reventazoni.*

Tres Ríos: *Marmosa alstoni alstoni; Rheomys underwoodi.*

Tuis, about 20 miles east of Cartago: *Oryzomys bombycinus alleni.*

Volcán de Irazú: *Cryptotis jacksoni; Cryptotis orophila; Oryzomys fulvescens creper; Reithrodontomys sumichrasti australis; Reithrodontomys rodriguezi; Scotinomys longipilosus; Scotinomys teguina irazu; Felis pardinoides oncilla.*

Guanacaste

Culebra, Bahía de Culebra: *Ateles geoffroyi frontatus.*

Hacienda Miravalles, near, Volcán de Miravalles: *Micronycteris sylvestris.*

Hacienda Santa María, 18 miles northeast of Liberia: *Sylvilagus floridanus costaricensis; Reithrodontomys gracilis harrisi; Peromyscus nudipes hesperus.*

Liberia: *Sciurus variegatoides dorsalis.*

Volcán de Miravalles, Cordillera del Guanacaste: *Sciurus deppei miravallensis.*

Limón

Cuabre, Talamanca region: *Ateles geoffroyi ornatus.*

Jiménez, upper Río Jiménez: *Microsciurus alfari alfari; Nectomys alfari alfari.*

Río Lari, head of, near base of Pico Blanco: *Cryptotis gracilis.*

[Río] Pacuare: *Myrmecophaga tridactyla centralis; Macrogeomys cherriei costaricensis.*

Río Sicsola (Sixaola), between Cuabre and mouth of Río Sixaola: *Oryzomys talamancae carrikeri.*

Santa Clara: *Macrogeomys cherriei cherriei.*

Sipurio, Río Sixaola: *Sylvilagus brasiliensis gabbi; Tayassu pecari spiradens; Mazama americana cerasina.*

CENTRAL AMERICA—Continued

Costa Rica—Continued

Suerre, a finca near Jiménez: *Oryzomys caliginosus chrysomelas.*

Talamanca (probably near Sipurio, valley of Río Sixaola): *Caluromys derbianus centralis; Sciurus variegatoides thomasi; Oryzomys talamancae talamancae; Procyon lotor crassidens; Bassaricyon gabbii gabbii; Felis onca centralis; Felis pardalis mearnsi; Odocoileus costaricensis.*

PUNTARENAS

Agua Buena, Sabanna de Potrero Grande: *Reithrodontomys mexicanus portrerograndei; Scotinomys teguina endersi.*

Boruca, near Río Diquís: *Zygodontomys cherriei cherriei; Sigmodon hispidus borucae.*

El General: *Oryzomys fulvescens costaricensis.*

Las Agujas: *Sciurus variegatoides austini.*

Point [Punta] Burica: *Sciurus variegatoides melania.*

Puntarenas [city]: *Balantiopteryx plicata plicata.*

Tambor, Nicoya Peninsula: *Sciurus variegatoides atrirufus.*

SAN JOSÉ

Agua Caliente, probably: *Sciurus granatensis hoffmanni.*

Alto de Jabillo Pirris, between San Gerónimo and Pozo Azul: *Macrogeomys underwoodi.*

Escazú, about 7 miles southwest of San José: *Diclidurus virgo; Choloepus hoffmanni; Heteromys desmarestianus underwoodi; Liomys salvini nigrescens.*

Escazú Heights: *Macrogeomys heterodus heterodus.*

Joquín de Dota (San Joaquín de Dota): *Oryzomys aphrastus.*

Los Higuerónes, highlands above Escazú: *Scotinomys teguina escazuensis.*

Pozo Azul, 9 miles upstream from mouth of Río Pirris: *Micronycteris hirsuta; Saimiri örstedii citrinellus; Nasua narica bullata; Felis carrikeri.*

Rancho Redondo: *Hylonycteris underwoodi.*

Sabanilla de Pirris, about 10 miles south of Puriscal: *Liomys salvini aterrimus; Urocyon cinereoargenteus costaricensis.*

San Gerónimo de Pirris, near Pozo Azul: *Heteromys desmarestianus planifrons; Nyctomys sumichrasti costaricensis; Ototylomys phyllotis australis; Dasyprocta punctata underwoodi.*

San Isidro: *Cryptotis nigrescens.*

San José [city]: *Artibeus intermedius; Sciurus variegatoides rigidus; Reithrodontomys mexicanus cherrii; Mustela frenata costaricensis.*

Zarcero or Palmira, probably: *Macrogeomys heterodus dolichocephalus.*

El Salvador

No exact locality: *Vespertilio concinnus; Sciurus variegatoides variegatoides.*

AHUACHAPÁN

Barra de Santiago: *Sciurus variegatoides bangsi; Nyctomys sumichrasti florencei; Procyon lotor dickeyi.*

CHALATENANGO

Los Esesmiles: *Heteromys desmarestianus psakastus; Peromyscus mexicanus philombrius; Rheomys thomasi stirtoni.*

San José del Sacare (San José del Sacario): *Peromyscus boylii sacarensis.*

LA LIBERTAD

Hacienda Zapotitán.—*Chironectes argyrodytes.*

LA UNIÓN

Cerro Mogote, near, 2 miles west of Río Goascorán.—*Canis latrans dickeyi.*

Río Goascorán.—*Peromyscus stirtoni.*

SAN MIGUEL

Finca San Felipe, Mount Cacaguatique.—*Rheomys thomasi thomasi.*

Mount Cacaguatique.—*Orthogeomys pygacanthus; Peromyscus boylii cordillerae; Peromyscus mexicanus salvadorensis.*

SONSONATE

Hacienda Chilata, about 12 miles southeast of Sonsonate, Balsam Range.—*Reithrodontomys mexicanus orinus.*

Guatemala

No exact locality: *Caluromys derbianus fervidus; Choeroniscus godmani; Sciurus griseoflavus griseoflavus; Orthogeomys grandis latifrons; Peromyscus mexicanus gymnotis; Elasmognathus dowii.*

CENTRAL AMERICA—Continued

Guatemala—Continued

ALTA VERAPAZ

Cobán: *Sorex veraepacis veraepacis; Blarina tropicalis; Cryptotis micrura; Ateles geoffroyi pan; Heteromys desmarestianus desmarestianus; Oryzomys couesi couesi; Ototylomys connectens; Scotinomys teguina teguina; Jentinkia sumichrasti variabilis.*

Chimoxan, about 40 miles northeast of Cobán: *Peromyscus guatemalensis tropicalis.*

Finca Concepción, 35 miles east of Cobán: *Peromyscus grandis.*

La Primavera, about 10 miles southwest of Cobán: *Tylomys nudicaudus.*

Río Dolores, near Cobán: *Balantiopteryx io.*

Secanquim, about 50 miles east of Cobán: *Sciurus yucatanensis phaeopus.*

Tucuru, Río Polochic, about 50 miles southeast of Cobán: *Ototylomys phyllotis guatemalae.*

EL QUICHÉ

Chichicastenango (Santo Tomás): *Reithrodontomys mexicanus howelli.*

Sacapulas: *Liomys anthonyi; Reithrodontomys gracilis anthonyi.*

HUEHUETENANGO

Jacaltenango: *Peromyscus mexicanus saxatilis.*

Nentón: *Oryzomys couesi zygomaticus; Neotoma ferruginea solitaria; Urocyon cinereoargenteus guatemalae.*

Todos Santos, southeast of Nentón: *Reithrodontomys tenuirostris; Reithrodontomys microdon microdon; Peromyscus lophurus; Peromyscus guatemalensis guatemalensis; Peromyscus altilaneus; Herpetomys guatemalensis.*

IZABAL

Bobos: *Micronycteris schmidtorum.*

Río Managua (Río Motagua, near Lake Izabal): *Sciurus variegatoides managuensis.*

PETÉN

Guyo: *Trachops coffini.*

Laguna de Zotz [Sotz]: *Chilonycteris torrei continentis.*

La Libertad: *Felis concolor mayensis.*

Santa Isabel: *Eptesicus propinquus.*

Uaxactún: *Alouatta palliata pigra.*

QUEZALTENANGO

Calel: *Sorex saussurei salvini; Cryptotis goodwini; Oryzomys alfaroi rhabdops; Reithrodontomys sumichrasti dorsalis; Reithrodontomys tenuirostris aureus.*

Volcán de Santa María: *Sorex saussurei godmani; Orthogeomys grandis vulcani; Oryzomys alfaroi angusticeps.*

Zanjón: *Sigmodon hispidus zanjonensis.*

SACATEPÉQUEZ

Dueñas: *Orthogeomys grandis grandis; Liomys salvini salvini; Nyctomys sumichrasti salvini; Neotoma ferruginea ferruginea.*

SAN MARCOS

Hacienda California, 6 miles from Ocós: *Reithrodontomys gracilis pacificus.*

Volcán Tajumulco, south slope: *Neotoma ferruginea vulcani.*

VERAPAZ

No exact locality: *Felis wieddi salvinia.*

Honduras

No exact locality: *Tamandua sellata; Sciurus boothiae annalium.*

ATLÁNTIDA

Ceiba (La Ceiba): *Sigmodon hispidus furvus.*

COPÁN

San Pedro, mountains west of: *Scotinomys teguina rufoniger.*

CORTÉS

Chamelecón: *Cabassous centralis; Pecari tajacu nigrescens.*

Puerto Caballos: *Thyroptera discifera discifera.*

Río de las Piedras: *Nyctomys sumichrasti decolorus.*

San Pedro Sula, Río Chamelecón: *Sciurus variegatoides boothiae; Liomys heterothrix.*

FRANCISCO MORAZÁN

Cerro Cantoral, northwest of Tegucigalpa: *Orthogeomys grandis pluto; Reithrodontomys mexicanus lucifrons.*

Cerro Guiñote, northeast of Archaga: *Canis latrans hondurensis.*

CENTRAL AMERICA—Continued

Honduras—Continued

Comayagüela, Río Grande, opposite Tegucigalpa: *Reithrodontomys mexicanus minusculus; Baiomys musculus grisescens.*

Monte Redondo, about 30 miles northwest of Tegucigalpa: *Sylvilagus floridanus hondurensis; Sciurus variegatoides underwoodi.*

Zambrano, on main road to Lake Yojoa: *Glaucomys volans underwoodi.*

LA PAZ

El Pedrero, 6 kilometers north of Chincala: *Eumops underwoodi underwoodi.*

La Cruz Grande, near San José: *Sturnira hondurensis.*

Las Pilas, 6 miles north of Marcala: *Phylloderma septentrionalis.*

Muya, 5 miles north of Chincala: *Peromyscus hondurensis.*

OCOTEPEQUE

Monte Verde, 30 miles northwest of Ocotepeque.—*Reithrodontomys australis underwoodi; Reithrodontomys mexicanus ocotepequensis.*

ISLAS DE LA BAHÍA

Ruatán (Roatán) Island: *Marmosa mitis ruatanica; Dasyprocta ruatanica.*

Little Swan Island [Islas Santanilla, or Islas de El Cisne]: *Geocapromys brownii thoracatus.*

Nicaragua

No exact locality: *Caluromys derbianus canus.*

Lake Nicaragua: *Alouatta palliata palliata.*

San Emilio, south end of Lake Nicaragua: *Proechimys semispinosus centralis.*

BOACO

Vijagua (Bijagua): *Oryzomys fulvescens nicaraguae.*

CHINANDEGA

[El] Realejo: *Glossophaga soricina leachii; Centurio senex; Sciurus variegatoides adolphei; Dasyprocta punctata punctata.*

Volcán de Chinandega: *Liomys salvini vulcani; Felis wiedii nicaraguae.*

CHONTALES

Lake Nicaragua, lowlands east of: *Sigmodon hispidus griseus.*

Javali gold mine: *Bradypus griseus castaneiceps.*

RÍO SAN JUAN

Greytown (San Juan del Norte): *Didelphis marsupialis richmond; Philander opossum fuscogriseus; Micronycteris megalotis microtis; Aotus rufipes; Ateles geoffroyi geoffroyi; Nyctomys sumichrasti venustulus.*

JINOTEGA

Jinotega [city]: *Reithrodontomys sumichrasti modestus.*

San Rafael del Norte: *Cryptotis olivacea; Sciurus deppei matagalpae; Conepatus mesoleucus nicaraguae.*

MANAGUA

Managua [city]: *Lichonycteris obscura.*

MATAGALPA

Lavala (Savala): *Alouatta palliata matagalpae; Hoplomys gymnurus truei; Lutra annectens latidens.*

Matagalpa [city]: *Pteronotus suapurensis centralis; Artibeus jamaicensis richardsoni; Ototylomys phyllotis fumeus; Peromyscus nicaraguae; Neotoma chrysomelas; Mustela frenata nicaraguae.*

Tuma: *Sylvilagus gabbi tumacus; Heteromys desmarestianus fuscatus.*

Uluse: *Tayra barbara inserta.*

RIVAS

Peña Blanca: *Macrogeomys matagalpae; Oryzomys richardsoni.*

Sábalos, on Río San Juan, at junction of Río Sábalos: *Microsciurus alfari septentrionalis.*

ZELAYA

Bluefields: *Marmosa alstoni nicaraguae.*

Cabo Gracias á Dios, Comarca de El Cabo, at mouth of Río Segovia (Wanks): *Cebus capucinus limitaneus.*

Kanawa Creek, near Cukra, north of Bluefields: *Tonatia nicaraguae.*

CENTRAL AMERICA—Continued

Nicaragua—Continued

Río Escondido, 7 miles below Rama: *Nectomys dimidiatus.*

Río Escondido, 50 miles above Bluefields: *Sciurus variegatoides belti; Sciurus richmondi; Oryzomys couesi richmondi; Dasyprocta punctata richmondi; Nasua narica richmondi.*

Río Grande: *Oryzomys alfaroi incertus; Oryzomys ochraceus; Bassaricyon gabbii richardsoni.*

Río Segovia, Comarca de El Cabo: *Ectophylla alba.*

Río Segovia, about 50 miles from sea, Comarca de El Cabo: *Odocoileus virginianus truei.*

Panamá

No exact locality: *Tylomys panamensis.*

Isthmus: *Tapirella bairdii.*

San Pablo, in Chiriquí or Veraguas: *Vampyrodes major.*

Canal Zone

No exact locality: *Marikina geoffroyi.*

Ancón: *Procyon lotor pumilus.*

Aspinwall (Colón): *Vespertilio exiguus.*

Balboa, 3 miles west of: *Urocyon cinereoargenteus furvus.*

Barro Colorado Island: *Oecomys endersi.*

Bas Obispo: *Vampyrops zarhinus.*

Colón: *Dasyprocta punctata isthmica.*

Corozal: *Sciurus variegatoides helveolus; Oryzomys tectus frontalis.*

Gatún: *Metachirus nudicaudatus dentaneus; Aotus zonalis; Microsciurus alfari venustulus; Oryzomys gatunensis; Procyon cancrivorus panamensis; Mazama americana reperticia.*

Loma del León, Gatún Lake: *Sciurus granatensis morulus.*

Río Indio, near Gatún: *Marmosa mitis isthmica; Heteromys desmarestianus zonalis; Hoplomys gymnurus goethalsi; Mustela frenata panamensis.*

Tabernilla: *Zygodontomys cherriei ventriosus.*

Chiriquí

Bogavo (Bugaba), foothills of Volcán de Chiriquí: *Caluromys derbianus pallidus; Centronycteris maximiliani centralis; Artibeus cinereus watsoni; Dasypterus ega panamensis; Eumops bonariensis nanus; Microsciurus alfari browni; Macrogeomys cavator pansa; Oryzomys tectus tectus; Tylomys watsoni; Proechimys centralis chiriquinus.*

Boquerón: *Marmosa mexicana savannarum; Phyllostomus hastatus panamensis; Myotis chiriquensis; Tamandua tetradactyla chiriquensis; Sigmodon hispidus chiriquensis; Nasua narica panamensis; Potos flavus chiriquensis; Felis yagouaroundi panamensis; Odocoileus virginianus chiriquensis.*

Bóquete, Volcán de Chiriquí: *Diphylla ecaudata centralis; Eptesicus chiriquinus; Cebus capucinus imitator; Microsciurus boquetensis; Syntheosciurus brochus; Macrogeomys cavator cavator; Heteromys desmarestianus repens; Oryzomys devius; Oryzomys fulvescens vegetus; Nyctomys sumichrasti nitellinus; Peromyscus cacabatus; Peromyscus flavidus; Scotinomys teguina apricus; Coendou mexicanus laenatus; Jentinkia sumichrasti notinus; Conepatus semistriatus trichurus; Felis concolor costaricensis; Pecari tajacu crusniger.*

Casita Alta, Finca Lerida, Bóquete: *Scotinomys teguina leridensis.*

Cerro Pando, between Río Chiriquí Viejo and Río Colorado, about 10 miles from El Volcán: *Heteromys desmarestianus chiriquensis; Bassaricyon pauli.*

Cerro Punta: *Cryptotis zeteki.*

Cylindro: *Cryptotis endersi.*

David, vicinity of: *Saimiri örstedii örstedii.*

Divalá: *Sciurus granatensis chiriquensis; Cuniculus paca virgatus; Dasyprocta punctata nuchalis.*

Gutiérrez, in mountains about 25 miles inland from Chiriquiscito, on trail from Chiríqui Lagoon to Bóquete: *Thyroptera tricolor albigula.*

Río Cotito, hot springs: *Rheomys hartmanni.*

Río Gariché, 5 miles southwest of El Volcán Post Office: *Reithrodontomys mexicanus garichensis; Scotinomys teguina garichensis.*

Sevilla Island: *Coendou rothschildi.*

Siolo, Río Colorado, tributary of Río Chiriquí Viejo, 10 miles west-northwest of El Volcán Post Office: *Scotinomys teguina episcopi.*

Volcán de Chiriquí: *Reithrodontomys sumichrasti vulcanius; Reithrodontomys creper; Scotinomys xerampelinus; Sigmodon hispidus austerulus.*

CENTRAL AMERICA—Continued

Panamá—Continued

COLÓN

Cerro Bruja, about 15 miles southeast of Portobello: *Ateles geoffroyi panamensis.*

DARIÉN

Amagal, south of Guatabo Bay: *Heteromys australis pacificus.*

Boca de Cupe: *Pecari tajacu bangsi.*

Cana (Santa Cruz de Cana), upper Río Tuyra [Tuira]: *Marmosa invicta; Monodelphis melanops; Chironectes panamensis; Lonchophylla concava; Sylvilagus brasiliensis messorius; Sciurus granatensis choco; Microsciurus isthmius vivatus; Macrogeomys dariensis; Heteromys australis conscius; Oryzomys alfaroi dariensis; Neacomys pictus; Nectomys alfari efficax; Reithrodontomys dariensis; Bassaricyon gabbii orinomus; Lutra annectens repanda; Felis wiedii pirrensis.*

Marraganti, near Real de Santa María, Río Tuyra [Tuira]: *Bradypus griseus ignavus; Hydrochoerus isthmius; Diplomys darlingi.*

Mount Pirri, near head of Río Limón: *Cryptotis mera; Ateles dariensis; Heteromys desmarestianus crassirostris; Oryzomys bombycinus orinus; Oryzomys pirrensis; Rhipidomys scandens; Peromyscus pirrensis; Rheomys raptor; Dasyprocta punctata dariensis; Potos flavus isthmicus: Icticyon panamensis.*

Río Jesuito [Jesucito]: *Oecomys trabeatus.*

Río Tuyra [Tuira]: *Ateles geoffroyi grisescens.*

Tacarcuna: *Tylomys fulviventer.*

HERRERA

Capina: *Alouatta palliata trabeata.*

PANAMÁ

Archipiélago de las Perlas, Golfo de Panamá.—Isla del Rey (San Miguel Island): *Didelphis marsupialis particeps; Marmosa mitis fulviventer; Sylvilagus brasiliensis incitatus; Zygodontomys seorsus: Dasyprocta punctata callida; Proechimys semispinosus burrus; Diplomys labilis.*

Isla San José: *Dasyprocta punctata bellula; Proechimys semispinosus ignotus; Mazama gouazoubira permira.*

Cabima: *Vampyressa minuta; Chiroderma isthmicum.*

Chilibrillo River, cave on, near Alhajuela: *Lonchophylla robusta.*

Cerro Azul, near headwaters of Río Chagres: *Alouatta palliata inconsonans; Heteromys desmarestianus panamensis; Oryzomys bombycinus bombycinus; Oryzomys caliginosus idoneus.*

Old Panamá, near Panamá [city]: *Sylvilagus brasiliensis consobrinus.*

Panamá [city]: *Liomys adspersus; Oryzomys panamensis.*

Panamá [city], near savanna of Panamá: *Proechimys semispinosus panamensis.*

VERAGUAS

Altos Cacao, on ridge between Río Mariato and Río Negro, Mariato-Suay Lands: *Proechimys semispinosus goldmani.*

Altos Negritos, 10 miles east of Montijo Bay, Mariato-Suay Lands, Azuero Peninsula: *Ateles geoffroyi azuerensis.*

Calovévora [Calovébora]: *Tayra barbara biologiae.*

Cordillera de Chucu: *Bradypus griseus griseus.*

Coiba (Quibo) Island: *Didelphis marsupialis battyi; Molossus coibensis; Alouatta palliata coibensis; Dasyprocta coibae; Odocoileus virginianus rothschildi.*

Gobernadora Island, off west coast: *Caluromys derbianus nauticus.*

Paracoté, 1½ miles south of mouth of Río Angulo, east side of Golfo de Montijo: *Aotus bipunctatus; Oryzomys azuerensis; Dasyprocta punctata pallidiventris.*

CARIBBEAN SEA

Old Providence Island: *Natalus brevimanus.*

St. Andrews Island: *Artibeus coryi.*

WEST INDIES

No exact locality: *Lonchorhina aurita; Coendou pallidus; Trichechus manatus manatus.*

Bahama Islands

Crooked Island: Gordon Hill Caves, Burial Cave No. 1: *Geocapromys ingrahami irrectus.*

Eleuthera Island:*Macrotus waterhousii compressus; Tadarida bahamensis.*

Great Abaco Island: Imperial Lighthouse Caves, Hole in the Wall: *Geocapromys ingrahami abaconis.*

Mariguana (Mayaguana) Island: Abrahams Hill: *Erophylla planifrons mariguanensis.*

New Providence Island, no exact locality: *Procyon maynardi.*

Nassau: *Erophylla planifrons planifrons; Eptesicus fuscus bahamensis.*

Plana Keys, East Plana Key: *Geocapromys ingrahami ingrahami.*

Providenciales [Blue Hills] Island.—Kingston: *Macrotus waterhousii heberfolium.*

Watling Island [San Salvador]: *Natalus tumidifrons.*

Cuba

No exact locality: *Chilonycteris macleayii macleayii; Phyllops falcatus; Erophylla sezekorni sezekorni; Phyllonycteris poeyi; Natalus lepidus; Eptesicus cubensis; Eptesicus fuscus dutertreus; Lasiurus pfeifferi; Tadarida muscula; Nyctinomus macrotis; Molossus tropidorhynchus; Capromys pilorides pilorides; Capromys prehensilis pallidus; Capromys prehensilis poeyi.*

Southern Cuba, no exact locality: *Capromys prehensilis prehensilis.*

Western Cuba, no exact locality: *Macrotus waterhousii minor.*

Habana

Isle of Pines (Isla de Pinos).—Nueva Gerona: *Capromys prehensilis gundlachi.*

Nueva Gerona, Casas Mountains: *Capromys pilorides relictus.*

Matanzas

Cafetal San Antonio el Fundador: *Mormoops blainvillii cinnamomea.*

Cárdenas, near: *Nycticeius cubanus.*

Fundator: *Chilonycteris parnellii boothii.*

Sierra de Hato Nuevo: *Nesophontes micrus; Capromys nana; Geocapromys cubanus; Boromys torrei.*

Oriente

Baracoa: *Monophyllus cubanus cubanus; Natalus macer.*

Baracoa, La Cueva de la Majana: *Chilonycteris torrei torrei.*

Bayamo, mountains near: *Atopogale cubana.*

Daiquirí, cave near: *Nesophontes longirostris; Phyllops vetus.*

Daiquirí, Cueva de los Indios: *Natalus primus.*

Maisí: *Boromys offella.*

Manzanillo: *Capromys melanurus melanurus; Capromys melanurus rufescens.*

Nipe Bay, vicinity of: *Atopogale poeyana.*

Santiago de Cuba: *Artibeus jamaicensis parvipes.*

Pinar Del Río

El Guamá: *Brachyphylla nana.*

Santa Clara [Las Villas]

Mina Carlota, Barrio de Cumanayagua, Trinidad Mountains.—*Mus musculus percnonotus.*

Trinidad.—*Mormopterus minutus; Geocapromys columbianus.*

Hispaniola

No exact locality: *Solenodon paradoxus.*

República Dominicana

No exact locality: *Plagiodontia aedium.*

Arroyo Salado: *Chilonycteris parnellii pusillus.*

Caña Honda: *Phyllops haitiensis.*

Constanza: *Eptesicus fuscus hispaniolae; Tadarida constanzae.*

Guarabo, 10 miles east of Jovero, Seibo Province: *Plagiodontia hylaeum.*

Samaná, 2 kilometers east of, Samaná Province: *Plagiodontia ipnaeum.*

WEST INDIES—Continued

República Dominicana—Continued

Samaná: *Molossus verrilli.*

San Cristóbal: *Erophylla santacristobalensis.*

San Pedro de Macorís: *Brotomys voratus.*

Savaneta, near: *Natalus major.*

Haiti

No exact locality: *Macrotus waterhousii waterhousii.*

Atalaye Plantation, cave near, about 4 miles east of St. Michel [de l'Atalaye]: *Nesophontes hypomicrus; Nesophontes paramicrus; Nesophontes zamicrus; Phyllonycteris obtusa; Quemisia gravis; Plagiodontia spelaeum.*

Jérémie, cave 8 miles west-southwest of: *Monophyllus cubanus ferreus.*

Port-au-Prince: *Chilonycteris fuliginosa fuliginosa.*

Port-de-Paix: *Brachyphylla pumila.*

St. Michel, cave near: *Acratocnus comes; Parocnus serus; Hexolobodon phenax; Isolobodon levir; Aphaetreus montanus; Brotomys contractus.*

Voute l'Eglise, cave near Jacmel road a few kilometers north of Trouin: *Lasiurus minor.*

Jamaica

No exact locality: *Chilonycteris parnellii parnellii; Mormoops blainvillii blainvillii; Monophyllus redmani; Artibeus jamaicensis jamaicensis; Reithronycteris aphylla; Tadarida murina; Molossus milleri; Orzyomys antillarum; Geocapromys brownii brownii; Capromys brachyurus; Monachus tropicalis.*

Kingston: *Natalus micropus.*

Montego Bay: *Erophylla sezekorni syops.*

Montego Bay, cave 3 miles east of: *Eptesicus lynni.*

Phoenix Park, St. Ann Parish: *Chilonycteris macleayii grisea.*

Port Antonio: *Glossophaga soricina antillarum.*

Spanish Town: *Macrotus waterhousii jamaicensis; Nyctinomus orthotis.*

Suttons, District of Vere: *Lasiurus degelidus.*

Puerto Rico

Bayamón, cave near: *Monophyllus portoricensis; Erophylla bombifrons.*

Cueva Catedral, near Morovis: *Nesophontes edithae.*

Cueva de Fari, near Pueblo Viejo: *Chilonycteris fuliginosa inflata; Chilonycteris parnellii portoricensis.*

Luquillo: *Molossus fortis.*

Maricao: *Eptesicus fuscus wetmorei.*

Morovis, cave near: *Monophyllus frater; Phyllonycteris major.*

Utuado: *Heptaxodon bidens; Elasmodontomys obliquus; Heteropsomys insulans; Homopsomys antillensis.*

Utuado, near, Cueva de la Ceiba, Hacienda Jobo: *Isolobodon portoricensis; Acratocnus odontrigonus.*

Utuado, near, cave on property of Don Gervacio Torano: *Acratocnus major.*

Lesser Antilles

Barbados.—No exact locality: *Procyon gloveralleni.*

St. Michael Parish: *Monophyllus plethodon.*

Coles Cave, St. Thomas Parish: *Brachyphylla minor.*

Barbuda Island, cave: *Megalomys audreyae.*

Dominica Island: *Ardops nichollsi; Natalus dominicensis; Myotis nigricans dominicensis; Tadarida antillularum.*

Grenada Island.—No exact locality: *Marmosa grenadae; Artibeus jamaicensis grenadensis.*

Gouyave, hills back of: *Dasypus novemcinctus hoplites.*

Point Saline: *Peropteryx macrotis phaea.*

Westerhall Estate: *Glossophaga longirostris rostrata.*

Guadeloupe Island.—No exact locality: *Artibeus lituratus praeceps; Ardops annectens.*

Goyave: *Dasyprocta noblei.*

Pointe-à-Pitre: *Procyon minor.*

Martinique Island: *Molossus major; Megalomys desmarestii.*

Montserrat Island: *Ardops montserratensis.*

St. Kitts Island: *Artibeus insularis; Molossus debilis.*

St. Lucia Island: *Monophyllus luciae; Ardops luciae; Megalomys luciae; Dasyprocta antillensis.*

St. Martin Island: *Dermanura eva.*

St. Vincent Island: *Brachyphylla cavernarum; Oryzomys victus; Dasyprocta albida.*

Virgin Islands.—St. Croix: *Noctilio leporinus mastivus.*

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